BROMINE IS AT A MARKETING CROSSROADS

Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

April 4, 1960

OPD SPECIAL 'DEPTH' REPORT PAGE THREE

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BROMINE PRODUCERS' ROSTER
It's Not Hard to See Who's Biggest

Producer	Location	Capacity (Million Lbs.)
American Potash	Trona, Calif.	2.0
Dow	Ludington, Mich.	5.5
	Midland, Mich.	10.0
Ethyl-Dow	Freeport, Tex.	160.0
FMC	Newark, Calif.	2.0
	S. Charleston, W. Va.	2.0
Great Lakes	Filer City, Mich.	5.0
Michigan Chemical	Manistee, Mich.	3.6
	St. Louis, Mich.	1.5
Michigan-Murphy	El Dorado, Ark.	5.0
	Total	196.6

In addition, Morton Chemical Company produces inorganic bromides from well brines at Manistee, Mich., and can be considered a potential producer of elemental bromine.

Bromine Use in 1965 to Pass 200 Million Pounds Provided Ethylene Dibromide Hangs On

OPD Special Report

Bromine producers feel sure they'll have a winner over the long term, since consumption is expected to rise to the neighborhood of 203 million pounds in 1965. This figure, compared with actual 1959 consumption of 171 million pounds, indicates a satisfactory growth rate. But it assumes that some of the problems currently faced by the industry will be ironed out to everyone's satisfaction over the next couple of years. Key to current bromine bafflement is ethylene dibromide. This halogenated hydrocarbon has been the chief reason for the bromine business since the invention of tetraethyl lead.

Since the beginning of use of TEL in 1923 as an antiknock agent in gasolines, ethylene dibromide has been used in conjunction as a scavenging agent to prevent lead deposits from forming in the engine.

Function of Scavengers

In motor mix additive to gasoline, TEL is added in combination with ethylene dichloride and dibromide. The scavengers then serve to form lead halides, which are blown out the exhaust. In aviation mix, where the dichloride is unsuitable, the dibromide is used in proportionately higher quantity.

Things went fine for TEL, as steady increases in consumption were racked up consistently until a peak of 510 million pounds was consumed for automotive and aviation use in 1956.

Then, early in 1959, J. A. Costello, vice-president of Ethyl Corporation, told the Lead Industries Association what happened. "When I spoke to you last year," Mr. Costello said, "I pointed out that while we had been enjoying a growth factor of about 7 percent a year up to 1956, that 1957 had leveled off and we expected 1958 to be about the same.

"Actually, this turned out to be a poor forecast because, while 1957 business was only 4 percent below 1956, in 1958 tetraethyl lead business was 14 percent below 1956.

"If we go back to 1954 and tally up the results, we find that the years 1955 and

—Continued on page 32

BROMINE SALES

1965	*203.0 million lbs.
1960	*176.0 million lbs.
1959	171.0 million lbs.
1958	176.4 million lbs.
1957	191.9 million lbs.
1656	196.7 million lbs.
1955	184.5 million lbs.
1954	187.4 million lbs.
1953	164.1 million lbs.

*Industry Estimate
Source: Tariff Commission

Color, Labeling Legislation May Lag But It Won't Be Fault of the Senate

If congress fails to enact either the color additives control bill or the hazardous articles labeling bill into law this year, it won't be the fault of the senate. The upper house has finished its work on these two legislative proposals of primary interest to the chemical industry and turned them over to the house for action. It is now up to that body and, more particularly, the commerce committee, to start moving if the bills are going to get through this year.

NEW PRESIDENT: Harry B. Warner, who will become top executive at B. F. Goodrich Chemical Company, Cleveland, Ohio, on May 1. He will succeed John R. Hoover, who is retiring.

Chemical industry attention to the doings in congress shifted entirely to the house last week when the senate suddenly cranked up its legislative machinery and passed a score or more meaures that had been gathering dust on its calendar, including the bill (S 1283) for the labeling of hazardous household articles.

Stopped by Civic Rights Issue

Legislative processes ground to a halt six weeks ago in the senate while members fought over the civil rights issue.

The labeling bill passed the senate in exactly the form in which it had been reported by the senate commerce committee with the amendments that had been proposed last year by the chemical industry.

There was no debate whatsoever on the bill, nor was their any attempt made to include the amendments which the Food & Drug Administration desired, or those favored by the American Medical Association.

Hearings have been completed on a similar bill, HR 5260, by the Roberts subcommittee of the house commerce committee, but as yet the committee has not met to consider the amendments offered by industry and the FDA.

Committee aides say, however, that now that the senate has passed its measure, the subcommittee can be expected to act on the bill soon. They believe the final

—Continued on page 67

Swedish Paper Market A Target for Hercules

Hercules Powder Company is setting up a foreign subsidiary to furnish chemicals to the Swedish paper industry. The unit, under the Wilmington, Del., firm's international department, will build and operate a plant at an as yet unannounced location.

Headquarters, however, will be in Gothenburg and the new company will be known as Hercules Kemiska Aktiebolog, according to a report out of Wilmington today (April 4).

Head of the new unit will be Prosper F. Neumann, a Hercules executive, who will serve as managing director.

The new plant will be designed to produce a complete line of chemicals for the Swedish paper industry. However, at the beginning of operations, production will be devoted entirely to the manufacture of

—Continued on page 66

Delhi Set to Beat Orthoxylene Record

Delhi-Taylor Oil Corporation, unruffled by Cosden Petroleum Corporation's plan to boost o-xylene potential to 70 million pounds, has just decided to do the same thing. But Delhi will do it six months earlier.

Cosden announced from its headquarters in Big Spring, Tex., two months ago (OPD, 2/1/60) that it was going in for a drastic expansion that would boost mer-

—Continued on page 40

Cyclohexane Unit of Gulf On Stream at Port Arthur

First commercial "Hydrar" unit for production of high purity cyclohexane from benzene has bone on stream at Gulf Oil Corporation's, Port Arthur, Tex., refinery.

This latest addition to Gulf's large petrochemical processing facilities was designed by Universal Oil Products Company and built by Procon, Inc. Capacity is unofficially pegged at 20 million gallons a year.

Detergent Alkylate Plant Of Oronite Is Starting Up

Oronite Chemical Company, a subsidiary of Standard Oil Company of California, is starting full-scale production of detergent alkylate at a newly-completed plant in Richmond, Calif.

Although capacity figures have not been revealed, the plant is said to be the "largest detergent polymer facility."

The multi-million dollar plant, under construction for approximately eighteen months, will produce detergent polymer, using a new process developed by Oronite's research affiliate, California Research Corporation.

The polymer will be processed into detergent alkylate—which Oronite will trade name "Alkane-60"—and then will

—Continued on page 66

UP TO PRESIDENCY: Frank Seeland, elected president of Dr. LeGear, Inc., St. Louis, Mo., succeeding Dr. Daniel H. LeGear, who is retiring. Mr. Seeland will continue as vice-president of the farm chemicals and insecticide division of S. B. Penick & Co., New York, which has controlling interest of LeGear.

Soybean People Saddened, Casein People Gladdened

The soybean people, trying to establish a new industry, were disappointed last week; and the casein people, trying to hold onto an old one, were delighted when congress voted a continuing suspension of import duties on casein.

The legislators voted a ninety-day extension of the present import duty suspension despite the fact that the soybean interests strongly protested it.

Behind the protest is the soybean industry's wish to see isolated soya protein become a replacement for casein.

The three-months' extension was a compromise of the original plans, which would have continued the duty suspension for another three years.

During the next ninety days, congress intends to consider the urging of the soybean industry that the lawmakers give a boost to the infant soya protein industry by permitting the 2¾ cent per pound duty to again operate on casein.

The import tariff has been in suspension since 1957, when congress decided there was no need for the tariff since domestic casein production had virtually ceased, as a result of the government's milk price support program.

The issue being presented to congress is somewhat akin to that which faced the oleomargarine industry for years—taxation of one product to encourage the consumption of another which may not be completely interchangeable.

Government agencies are leaving the issue strictly up to congress by offering no objections to the continued suspension of the casein tariff, while at the same time withholding specific endorsement of the legislation.

The fight between the soybean interests and the industrial consumers of casein, which has been simmering along for some

—Continued on page 53

Additives Laws of the States Should Follow Washington: MCA

Manufacturing Chemists' Association is moving to head off precipitous action by state legislatures on the additives question. MCA wants the states to wait until a national pattern has been established by federal action. In Wisconsin, scene of much official concern about additives since the cranberry scare last Thanksgiving, a spokesman for MCA last week spelled out the group's position for a joint meeting of the state's senate and assembly agricultural committees.

Federal laws suffice "to assure the public a safe and health-giving food supply," said James M. Gillet, consultant to MCA on food additives.

Where state laws are at variance with federal law, the chemical association advocates that the states take their cue from the federal government, he added.

Appearance of an MCA representative at the meeting was particularly timely. Wisconsin, which seems to be taking the leadership among the states on additives regulation, recently set a special committee of scientists and medical experts to studying the matter (OPD, 2/15/60).

Ohio, Mississippi on the Verge

(Ohio and Mississippi are reported to be on the verge of jumping into the additives situation. In the works are said to be committees patterned after those in Wisconsin.)

It's felt that the Wisconsin committee, appointed by Gov. Gaylord Nelson, may come up with its report this week or next, possibly before President Eisenhower's committee is ready to make recommendations on a national scale.

Also, the conservation committees of Wisconsin's senate and assembly are now meeting jointly to determine the effect of insecticides on wildlife.

Mr. Gillet's appearance on behalf of MCA came on the heels of testimony by two representatives of the National Agricultural Chemicals Association.

Looming large in Mr. Gillet's testimony was the Delaney anti-carcinogen amendment, which bars the use of cancer-causing additives regardless of whether they have been proved harmless to human beings.

"This provision bars the exercise of scientific judgment and the consideration of scientific evidence in evaluation of such substances," says Mr. Gillet.

A similar cancer clause, he notes, is incorporated in the color additive bill pending in the house of representatives. "Our association," he says, "and many other groups have testified on this color bill and have advocated either elimination of the cancer provisions as being unnecessary or modification of the cancer clause to substitute scientific evidence and judgment for legislative fiat in evaluating the safety of such substances.

3-M Is Talking Easier On Vast Wire Hookup

Minnesota Mining & Manufacturing Company, St. Paul, Minn., now has forty-three plants, laboratories and branch sales offices talking to each other via a push-button communications system.

Connecting units in seventeen states, the system speeds transmission of messages and orders on 10,000 miles of leased telegraph wires and equipment developed by Western Union. Telegraph officials say there are only twelve similar message systems in the nation.

Holland Color Pushes Way Right Next Door

Holland Color & Chemical Company, feeling the need to expand, has found the best place in the world to do it—right next door. The concern has just acquired an adjacent building from Holland Furnace Company and will use it as part of its own color and chemical operation.

Holland Color will use the present building, located at 471 Howard Avenue, in Holland, Mich., as a warehouse. The move will permit the company to then convert some if its current warehouse space into production facilities.

The property consists of an 80,000-square-foot plant on 11.3 acres, with a lake frontage of 250 feet. Terms of the agreement have not been disclosed.

Holland Color was established in 1928 and is now a subsidiary of Chemetron Corporation. It produces organic color

—*Continued on page 67*

Hydroxyethyl Cellulose Is Reduced by Carbide

Union Carbide Chemicals Company, New York, a division of Union Carbide Corporation, has reduced prices for its "Cellosize" hydroxyethyl cellulose by 12 cents a pound across the board.

Effective immediately, f.o.b., Niagara Falls, N.Y., quantities of 20,000 pounds or more are priced at 84 cents a pound; 2,000 to 19,999 pounds, 89 cents; 100 to 1,999 pounds, 93 cents, and smaller quantities, $1.03.

Nelio Buys Glidden Unit

Nelio Resins, Inc., Jacksonville, Fla., has acquired Glidden Company's Valdosta, Ga., naval stores and resin plant. The facility is said to have a large capacity for processing crude gum into resin and turpentine. All Glidden personnel connected with the enterprise have been retained by Nelio.

The Week's Price Changes

Calcium Chloride, Chlorine, Mercury b-Naphthol Advanced. Crude, Refined Coconut Oil, Molasses, Oiticica Oil Reduced.

Prices Advanced

Ammonium silicofluoride, ½c. per lb. (p. 33).
tert-Butyl alcohol, 1c. per lb. (p. 35).
Calcium chloride, flake, reg., $1 per ton (p. 33).
High-test, $1.50 per ton (p. 33).
Chlorine, liq., bulk, $2 per ton (p. 33).
Corn oil, crude, ¼c. per lb. (p. 60).
Refd., ¼c. per lb. (p. 60).
Cottonseed oil, crude, ¼c. per lb. (p. 60).
Refd., ¼c. per lb. (p. 60).
Isophthalic acid, 2c. per lb. (p 42).
Lard, cash, 3/10c. per lb. (p. 60).
Linseed meal, $2 per ton (p. 60).
Mercury, $1 per flk. (p. 33).
b-Naphthol, 1c. per lb. (p. 42).
Oleostearine, ½c. per lb. (p. 60).
Peanut oil, crude, 1c. per lb. (p. 60).
Refd., 1c. per lb. (p. 60).
Soybean meal, $2 per ton (p. 60).
Soybean oil, crude, ¼c. per lb. (p. 60).
Refd., ¼c. per lb. (p. 60).
Styrene monomer, tech., 5/100c. per lb. (p 42).
Sulfur dichloride, ¼c. to 1c. per lb. (p. 33).
Monochloride, ¼c. to 1c. per lb. (p. 33).
Tung oil, ½c. per lb. (p. 60).

Prices Reduced

Coconut oil, crude, ¼c. per lb. (p. 60).
Refd., ¼c. per lb. (p. 60).
Hydroxyethyl cellulose, 12c. per lb. (p. 35).
Molasses, New Orleans, ¼c. per lb. (p. 35).
Oiticica oil, 1¾c. per lb. (p. 60).

OPD Price Index

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:

(100=1949 average)

April 1, 1960	Mar. 25, 1960	April 3, 1959
110.85	110.72	110.79

FMC Eyes $24 Million Market

Niagara Chemical Division of Food Machinery & Chemical Corporation is drawing a bead on a major share of the $24 million annual miticide market. Its chief weapon: "Tedion," a new miticide which carries the jaw-breaking chemical name of 2,4,5,4-tetrachlorodiphenyl sulfone. What has FMC's Middleport, N.Y., unit particularly charged up is the fact that Food & Drug Administration has just established tolerances for "Tedion" and that the Department of Agriculture has approved its use on some ten deciduous fruits.

"Tedion" is particularly valuable, Niagara feels, because it is a specific miticide and has a low order of toxicity to bees and natural predators.

Safety and Residual Activity Cited

It is also reported to be very safe to the spray operator and grove workers, and non-toxic to fruit and foliage. On top of this, Niagara says, it has residual activity, or a long period of effectiveness.

Specific marketing targets are fruits and cotton. In fact, the FMC unit is confident that "Tedion" will grab off 70 percent of the deciduous fruit market within a year.

A tolerance of five parts per million of "Tedion" has been established for apples, crab apples, pears, quinces, plums,

—*Continued on page 56*

MOVES UP: Robert Elias, long associated with Felton Chemical Company, Brooklyn, N.Y., appointed sales manager, with complete charge of all domestic sales activities.

Zinc Oxide Pellets: They Won't Be Sold

Bids on 165,273 pounds of packaged zinc oxide pellets, opened on March 18, have been rejected by the General Services Administration.

The agency said that four bids were received ranging in price from 0.26 cent to 4 cents a pound of material. The high bid of 4 cents was not considered a satisfactory price, GSA said.

The pellets, located at Granite City, Ill., are now available for purchase on an "as is" negotiated sales basis in one lot. (A typical analysis of this oxide is: ZnO 95.1 percent, Fe_2O_3 1.3 percent, SiO_2 0.6 percent, and carbonates as CO_3 2 percent.) Offers will be considered until May 2.

Alkyl Prices Are Cut For Smaller Shipments

Texas Alkyls, Inc., through its sales agent, Anderson Chemical Division of Stauffer Chemical Company, has posted a price reduction for development quantities of five aluminum alkyls. The price for tonnage quantities remains unchanged at $2 a pound.

The alkyls are "Teal" (triethylaluminum); "Tibal" (tryiisobutyl aluminum);

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DEPARTMENT CHIEF: Leonard Engel, former assistant purchasing manager for American Agricultural Chemical Company, New York, named to head up the entire purchasing department for AAC.

Mallinckrodt Behind Italian Nuclear Firm

An American company, Mallinckrodt Chemical Works, St. Louis, Mo., is one of the big guns behind an Italian nuclear firm—Italatom of Milan—which is just being set up with international backing.

The new company plans to enter the market for nuclear fuel materials in Italy and other nations, both in and outside the Euratom Community.

Italatom is expected to manufacture natural, depleted and enriched uranium and thorium compounds, as well as uranium metal.

Along with Mallinckrodt, the incorporators are Montecatini, the big Italian chemical complex; Anglo-American Corporation of South Africa; and another American firm, Engelhard Industries, Inc., Newark, N.J.

Montecatini will own 50 percent of the new company and will be generally responsible for its management under policies established by the board of directors. The board will be made up of representatives of participating companies.

Mallinckrodt has been engaged in nuclear fuels activities since 1942. In recent years its commercial nuclear operations have been carried out by a subsidiary, Mallinckrodt Nuclear Corporation.

The St. Louis company's unique contribution to Italatom will be to provide the necessary technical know-how, according to Joseph Fistere, president.

Mallinckrodt will license (1) production

—Continued on page 62

Nitrogen-Fluorine Methods Developed by Thiokol Unit

Discovery of improved methods for producing three new nitrogen-fluorine compounds has been reported by Thiokol Chemical Corporation's Reaction Motors Division, Denville, N. J.

According to Thiokol, a new procedure has been developed for the preparation of dinitrogen tetrafluoride, dinitrogen difluoride and difluoramine as well as a method for improving the yield of nitrogen trifluoride.

Nitrogen-fluorine compounds, among the most powerful oxidizers being researched for rocket propulsion applications, can give liquid and solid propellants greater specific impulse than propellants currently being used.

Another recent achievement in propellant research announced by Thiokol Chemical is an improved polysulfide binder for solid fuels.

Narcotics Law Modernization Moves a Step Closer to Reality As Senate Tinkers But Little

A three-year effort by the government to modernize controls over the production and distribution of narcotic drugs in the United States has finally been capped with success. The senate last week passed the Karsten bill (HR 529) which would set up a licensing and quota system for production of narcotics in this country and bring the United States into better compliance with its international obligations under the United Nations.

Only two changes were made in the bill from the form in which it passed the house about a year ago. One change is to push the effective date ahead until January 1, 1961, and the other is to make certain that any proceedings instituted under existing laws are not invalidated by the new law.

House Seen Agreeable

The house is expected to accept the changes which will clear the way for signing the bill into law by the President.

The legislation had the support of the drug manufacturers, who had a good deal to do with its drafting. It is probably the most important and far-reaching bill in this field to be enacted since the opiates amendment to the internal revenue law in 1946.

Under the proposal, the Commissioner of Narcotics can license or withhold a license for the manufacture of any drug classed as a narcotic and set overall and individual quotas on the amounts that may be produced.

The present provisions for the control of the distribution and use of narcotic drugs are contained in the internal revenue code, known collectively as the Harrison act.

However, neither the Harrison act nor the narcotics drugs import and export act affords a basis for specific quantitative limitation of the manufacture of the drugs.

When the 1931 Convention for Limiting the Manufacture and Regulating the Distribution of Narcotic Drugs entered into force with respect to the United States July 9, 1933, this country accepted an obligation to limit to medical and scientific uses its manufacture of the narcotic drugs falling within the category of derivatives of opium and coca leaves, such as morphine and cocaine.

This obligation was met indirectly by appropriate restrictions under the narcotic drugs import and export act, upon the importation of the crude material as

—Continued on page 62

Gum Rosin Undertaking Slated by Hercules, Varn

Hercules Powder Company, Wilmington, Del., and Varn Timber Company, Hoboken, Ga., have launched a joint project to seek more efficient methods for the production of gum dip from the southern pine. The program is being carried out in the general vicinity of Hoboken utilizing approximately five crops of trees. Hercules states flatly that the cooperative venture does not mean Hercules is planning to go into the gum business.

The company's interest in this experimental project is the same as that of Varn Timber—an attempt to make gum rosin recovery a more efficient and economical operation and thus increase quantities of gum dip now reaching the market in diminishing amounts.

All information obtained by the Varn-Hercules project will be made available to the gum industry as soon as possible.

The maximum objective of the joint project is to develop a system by which more gum dip can be harvested at a lower cost by fewer workers. Most of the labor now done by historic hand methods would be performed by a machine.

IN SALES POST: Edmond V. Tyne, appointed sales manager for the Harchem chemical department of Wallace & Tiernan, Inc., Newark, N.J. He replaces M. F. Antonovich, who now heads up Harchem's purchasing department.

Rubber Facility Set By Witco of England

Witco Chemical Company, Ltd., the wholly-owned English subsidiary of Witco Chemical Company, New York, is all set to build a synthetic rubber plant on a twenty-acre site in the Midlands of England.

On-stream operations are scheduled to begin in early 1961, with an initial annual capacity of 8 million pounds dry weight. The output—a complete line of butadiene-styrene, high styrene, nitrile and other acrylic types of latices—will be sold to the textile, paper, rubber, plastic and allied industries.

Witco, Ltd., one of the United Kingdom's leading compounders of synthetic and natural latices, maintains headquarters in London and sales offices in London, Manchester and Glasgow.

Witco in New York produces and markets a diversity of chemicals for industrial and specialty applications. Its principal products include detergents, metallic stearates, driers, resins for urethane foams, asphalt products, phthalic anhydride, carbon blacks and naphthalene.

Michigan Chemical Buys New Pharmaceutical Unit

Michigan Chemical Corporation, St. Louis, Mich., has acquired Paul Maney Laboratories, of Cedar Rapids, Mich., which will be operated as an independent unit of the company's newly-organized ethical pharmaceutical division, Pharmich Laboratories.

The move is in line with Michigan Chemicals' announced program of acquisition and expansion in the field of fine chemicals and pharmaceuticals. It follows acquisition of Metropolitan Laboratories, Inc., Oyster Bay, N. Y., which has also become a unit of Pharmich Laboratories.

Kefauver Group Wins New Label: Kangaroo Court

The Kefauver committee investigating the pricing practices of the drug industry is "hardly more than a kangaroo court that would be run out of town" had it been operating in Tennessee.

Such is the characterization given to the investigating group last week by one of Sen. Estes Kefauver's own constituents, Grover C. Bowles, pharmacy director of the Memphis, Tenn., Baptist Memorial Hospital.

Mr. Bowles attacked the doings of the committee as unfair and undemocratic in the windup of a panel discussion of the work of the committee investigating drug prices at the two-day meeting of the American Pharmaceutical Association house of delegates.

Educator Not Allowed to Testify

Dean Linwood Tice of the Philadelphia College of Pharmacy and Science said that he too attended the night sessions held by the committee in February and became so incensed over the trend of the questioning that he sought permission the next day to testify, but was never granted the opportunity.

During the panel discussion, Peter N. Chumbris, minority counsel to the Kefauver committee, attacked the committee staff for "consistently using misleading data" to emphasize "grossly erroneous markups."

He warned that the hearings were more than just a matter of investigating pricing practices in the industry because they were being guided by persons whose philosophy of government is quite different from the conventional philosophy.

He listed eight "key issues" that have been raised at the hearings as follows: size of markups, tradenames, basis of computing profits, drug patents and cross licenses, prices of drugs here and abroad, exemption of drug advertising in professional journals, drug research, and selling and distribution costs.

Dr. Austin Smith, president of the Pharmaceutical Manufacturers Association, who also appeared on the panel, warned the pharmacists that their status as professionals is being threatened by the "revolution in medical care" that is taking place.

"There are many, many things occurring in the medical field that represent change or inevitable change," Dr. Smith said. "As I see it we, as professionals, have three things to worry about: (1) our professional standing; (2) our freedom as

—Continued on page 63

Collier Drops Sulfate Plan, Will Sell to Filtro Instead

Collier Carbon & Chemical Corporation has postponed plans to build an ammonium sulfate plant. The facility was slated to rise near Wilmington in the Los Angeles harbor area, where the Los Angeles-based firm has just started construction of a new sulfuric acid plant.

Replacing the former plan is an arrangement whereby Filtrol Corporation will convert Collier's raw materials into ammonium sulfate for marketing under its own trade name.

Wyandotte of the Midwest Now Looking to the East

Wyandotte Chemicals Corporation, with its headquarters in the midwest at Wyandotte, Mich., wants to put up a new plant in the east, midway between the two big cities of New York and Philadelphia—at Washington, N.J., to be exact.

If negotiations for a site are successful, the company plans to construct facilities which will produce Wyandotte's broad line of polyether products. This would be Wyandotte's first move eastward after seventy years of operation in Michigan and several years of activity near Baton Rouge, La.

Lead, Zinc Ideas? Tariff Commission Goes Blank

Adhering to the policy line laid down in the fluorspar report a month ago (OPD, 3/7/60), the Tariff Commission has just refused to submit any recommendations to congress for imposing additional import restrictions on lead and zinc. The commission finds, however, that the existing quota system has disrupted trade and has not curbed excessive imports of the minerals.

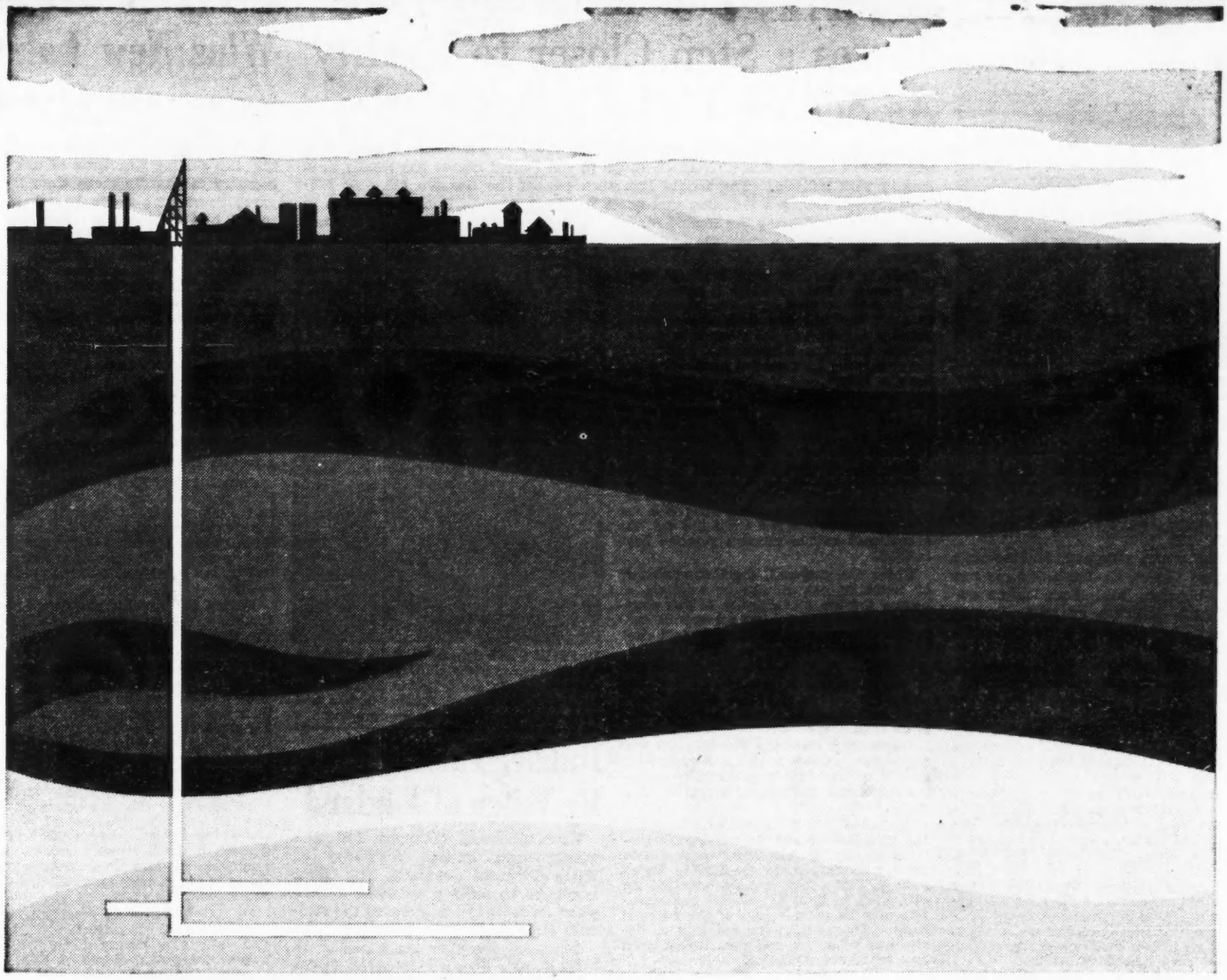
By a 4-2 vote last week the six commissioners came to the same point of view as before: Mainly, they have no authority under the law to make "recommendations or suggestions to the congress regarding the need for import restrictions."

The two minority votes were cast by Commissioners Walter R. Schreiber and Glenn W. Sutton, who proposed that the present quota system be scrapped and that existing tariff duties be hiked substantially.

The commission's report brought an immediate blast from Sen. James E. Murray of Montana, who said that legislation will have to be passed to make it clear that the commission is supposed to serve as an arm of congress and be responsive to congressional direction. He was pleased that at least two members saw fit to take "a step in the right direction."

The voluminous report of the commission is one of the most exhaustive reviews of the lead and zinc industry ever compiled by the government. After commenting extensively on the quota system imposed in 1958 and detailing some of the difficulties it has placed on both foreign

—Continued on page 67



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Borax Trucks Vanishing

The truck is beginning to follow the mule in Boron, Calif., out on the desert where United States Borax & Chemical Corporation has its big borate mine. And the mule, as everyone knows, has already passed into oblivion.

United States Borax is planning to install a giant conveyor system to bring the ore out of the 275-foot-deep open pit. Trucks are presently doing the job, but they are becoming too costly to operate.

The conveyor—much like a department store escalator—will be able to handle more ore, says the company, and it won't have to be replaced periodically, as the trucks do. The conveyor system is also considered safer.

Installation of the new lift will start within six weeks. It is expected to be carrying ore to the surface by fall.

The ore at the moment is being hauled by trucks from the bottom of the pit to a surface ore crusher, traveling a distance of two-and-one-half miles.

The pit, aside from being 250 feet deep, measures 2,000 feet in length and 1,700 feet in width.

The sodium borate deposits at Boron were proved commercially in 1925. They are said to be the largest and richest in the world—and reserves are expected to be good for another 100 years.

The new continuous-belt lift operation will rise at an angle, 315 feet to the surface. The company says it had had such a system in mind for a long time, but says it

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Pesticide Haters of Long Island Lose Fight on Spray Program But Gain a High-Placed Friend

The dedicated bird watchers and garden clubbers of Long Island's exurbia, who have been fighting the mass spray program of the Department of Agriculture in the courts, have lost their battle. But if it is any consolation to them, they have gained a friend, and he is an important friend—Associate Justice William O. Douglas of the Supreme Court. Last week, after the high court had rejected the nature lovers' appeal from a ruling of the Circuit Court, all the judges on the bench were silent as to their reasons, but not so Justice Douglas.

Mr. Douglas issued a seven-page dissenting blast at the Circuit Court ruling which had denied an injunction against resumption of the mass spray program.

Warns of 'Grave Mistake'

He warned his colleagues that they were making a grave mistake. Mr. Douglas, who is noted for his many outdoor activities and his achievements as a naturalist, argued that the issues involved in the case are of such great public importance that they should be looked into.

He cited a number of references to injuries that have been caused to the wildlife population by the use of chemical sprays and said that just because the spray program that affected the residents of the New York island had ended there was no reason for declaring the question moot.

"In other cases we have held that the cessation of the activity complained of did not render the case moot," the justice said, "and if future activity of the nature complained of is feared, the courts are not impotent to fashion a remedy which minimizes any injury from a recurrence of the practice."

Mr. Douglas expressed grave concern over the effects of DDT spraying on cattle, on the reproductive abilities of the bald eagle, and as a threat to human health. He said:

"The public interest in this controversy is not confined to a community in New York. Respondents' [Department of Agriculture's] spraying program is aimed at millions of acres of land throughout the eastern United States.

"Moreover, the use of DDT in residential areas and on dairy frams is thought by many to present a serious threat to human health as evidenced by the record

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RETIRING ALLIED EXECUTIVE: Leon W. Miller, assistant and consultant to the executive vice-president and former director of chemical sales in the plastics and coal chemicals division of Allied Chemical Corporation, N.Y., who retired last Friday (April 1) after forty-four years with the corporation.

Starch Is Coming Into the Country In Increasing Amounts All the Time

More and more starch is coming into the United States all the time. From a postwar low of 100 million pounds in 1954, imports of all types increased steadily to 272 million pounds in 1959, according to a comprehensive study on starches just released by the Tariff Commission. During the three-year period of 1957-1959, when US production of all starches averaged more than 5 billion pounds annually, total US imports averaged 225 million pounds a year.

AT DIRECTORS' TABLE: Dr. Walter S. Guthmann, elected to the board of Metal Hydrides, Inc., Beverly, Mass. President of Ringwood Chemical Corporation until it was acquired by Morton Chemical Company, Dr. Guthmann continues to be associated with Morton.

The commission study was made in response to a resolution of the senate passed last year at the request of the domestic producing industry which was concerned over the rising level of starch imports.

No Recommendations—Just a Report

The commission made no recommendations to the senate but simply submitted a factual report describing the industry in great detail and reporting on the producing industries abroad among those countries which are the chief sources of supply.

Although imports are on the rise, they are still far below pre-war levels. They averaged 391 million pounds a year in 1937-39 and after World War II they reached 313 million pounds in 1946 but then declined to 100 million pounds in 1954.

Total value of starches imported reached a record high of $16.2 million in 1946; the value of imports averaged $10.6 mil-

—Continued on page 56

Geigy Signs to Buy Land

Geigy Chemical Corporation, Ardsley, N.Y., has contracted to buy 140 acres at Suffern, N. Y., to build a plant for packaging and storing pharmaceutical products.

Lipstick Color Deadline Gets Extension From FDA

The Food & Drug Administration has extended the date for filing briefs in its hearings on the delisting of fourteen coal-tar colors, used chiefly in lipstick manufacture, until April 11.

The extension was requested by Revlon, Inc., and Toilet Goods Association, and applies to all those who made an appearance or testified during the hearings.

Nopco's French Subsidiary Buys Into French Concern

Nopco Chemical Company's wholly-owned subsidiary, Nopco Chimie, SA, Fribourg, Switzerland, has acquired a half interest in a French chemical firm, Doittau-Sopura, SA, Corbeil-Essonnes, outside Paris.

Doittau-Sopura will produce the complete line of Nopco chemicals for distribution in the European Common Market area. Among these are chemicals for such industries as textiles, paper, tanning, insecticides and metal working. The French company will be operated by existing personnel, with M. Jacques Combette as president. Dr. John E. Ward, a resident manager of Nopco Chimie, will serve as technical adviser and director.

Snell Picks Up Lab; Third in Three Years

Foster D. Snell, Inc., has just picked up its third lab in as many years. This one is Sperling Laboratories, Arlington, Va. The merger will increase existing services in pharmacology and toxicology, says Snell vice-president C. S. Kimball.

The first lab Snell absorbed in its current acquisition series was Seil, Putt & Rusby, of New York, which it acquired in 1957. Next came Davis & Bennett Laboratories, Worcester, Mass., which the Snell organization took over in early 1958.

Sperling was founded in 1956 by Dr. Frederick Sperling, formerly of the National Institutes of Health and the De-

—Continued on page 66

Cyanamid Hiking Catalyst

American Cyanamid Company, New York, will advance the price of "Aerocat 2000," a fluid cracking catalyst, to $240 a ton from $225 a ton on May 1. No price changes are slated for other grades of fluid cracking catalysts.

Association Meetings

American Chemical Society, national meeting, Cleveland, Ohio, April 5-14.

American Institute of Chemists, annual meeting, Radisson hotel, Minneapolis, Minn., May 12-14.

American Oil Chemists' Society, annual meeting, Baker hotel, Dallas, Tex, April 4-6.

American Pharmaceutical Association, annual meeting, Shoreham hotel, Washington, D. C., August 14-20.

American Zinc Institute, annual meeting, Chase-Park Plaza hotels, St. Louis, Mo., April 7-9.

Armed Forces Chemical Association, annual meeting, Sheraton-Park hotel, Washington, D. C., September 15-16.

Association of Consulting Chemists & Chemical Engineers, dinner and forum, Shelburne hotel, New York, April 19; annual meeting, Shelburne hotel, New York, October 25.

Association of Food & Drug Officials, annual conference, Baker hotel, Dallas, Tex., June 5-9.

Chemical Market Research Association, annual spring meeting, Biltmore hotel, New York, May 17-18; annual fall business meeting, Pittsburgh Hilton hotel, Pittsburgh, Pa., November 9-10.

Chemical Specialties Manufacturers Association, midyear meeting, Drake hotel, Chicago, May 16-18.

Drug, Chemical & Allied Trades Association, annual meeting, Sagamore hotel, Bolton Landing, Lake George, N Y., September 15-18.

Federation of Societies for Paint Technology, annual meeting, Sherman hotel, Chicago, October 31-November 2.

Lead Industries Association, annual meeting, Chase-Park Plaza hotels, St. Louis, Mo., April 6-7.

Manufacturing Chemists' Association, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., June 9-11.

National Agricultural Chemicals Association, annual meeting, Del Coronado hotel, Coronado, Calif., September 27-29.

National Packaging Exposition & Conference, sponsored by American Management Association, Convention Hall, Atlantic City, N. J., April 4-7.

National Paint, Varnish & Lacquer Association, annual convention, Drake hotel, Chicago, October 27-29.

National Plant Food Institute, annual convention, Greenbrier hotel, White Sulphur Springs, W. Va., June 12-15.

Parenteral Drug Association, scientific meetings, Warwick hotel, Philadelphia, April 29; Edgewater Beach hotel, Chicago, June 24; annual convention, Statler hotel, New York, October 19-21.

Pharmaceutical Manufacturers Association, annual meeting, Boca Raton hotel and club, Boca Raton, Fla., April 4-7.

Pulp Bleaching Conference, sponsored by Technical Association of Pulp & Paper Industry, Edgewater Beach hotel, Chicago, June 14 to 16.

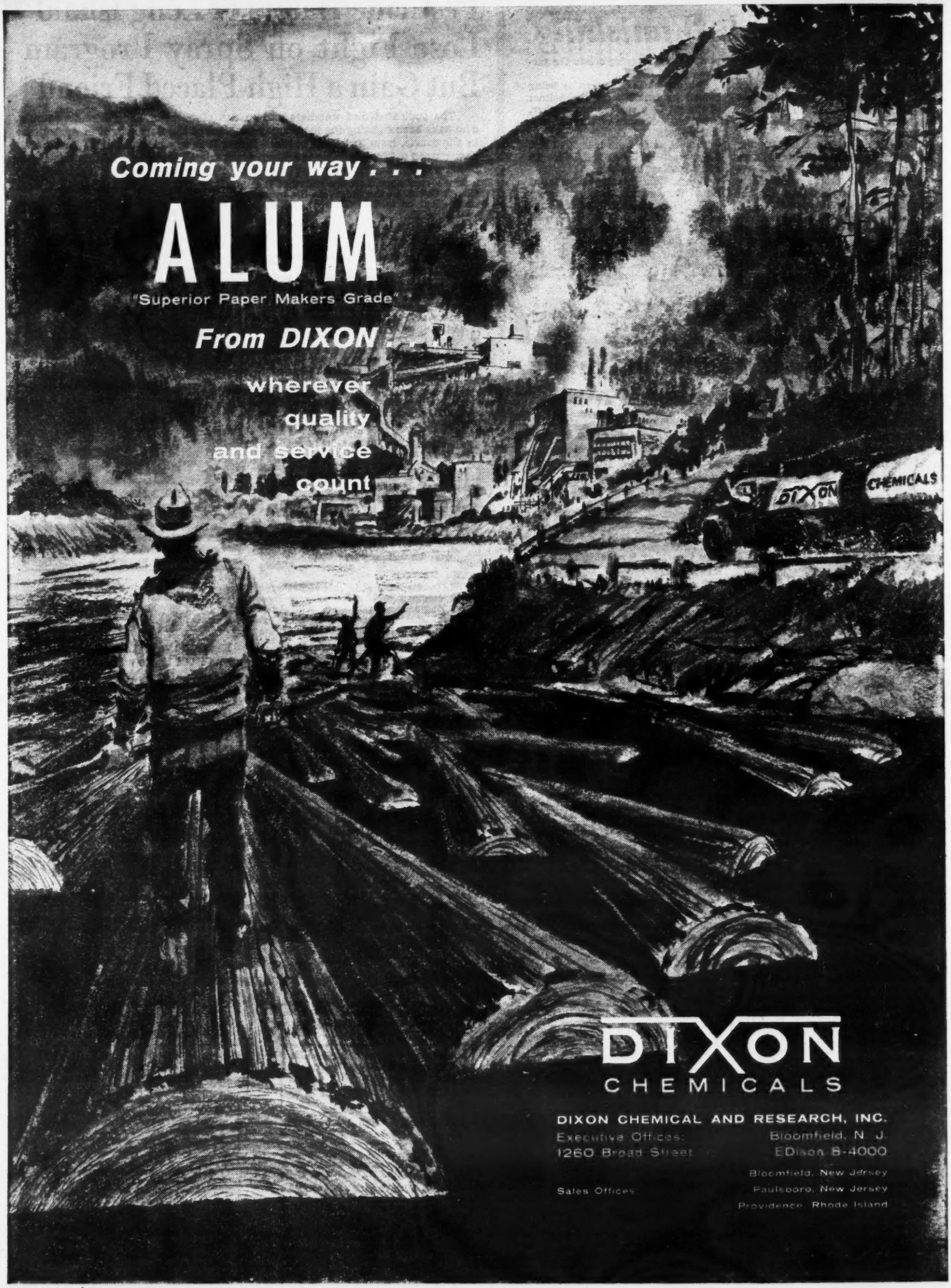
Society of the Plastics Industry, western sectional conference, New Riviera hotel, Palm Springs, Calif., April 6-9.

Society of the Plastics Industry, Canadian sectional conference, London hotel, London, Ont., April 25-26; national conference and annual meeting, cruise on the Queen of Bermuda, May 7-13.

Stanford Research Institute, symposium on chemical reactions in the lower and upper atmosphere, Mark Hopkins hotel, San Francisco, April 18-20.

Synthetic Organic Chemical Manufacturers Association, monthly luncheon meeting, Roosevelt hotel, New York, April 12.

Toilet Goods Association, scientific section, spring meeting, Waldorf-Astoria hotel, New York, May 11; annual meeting, Poland Spring House, Poland Spring, Maine, June 27-29.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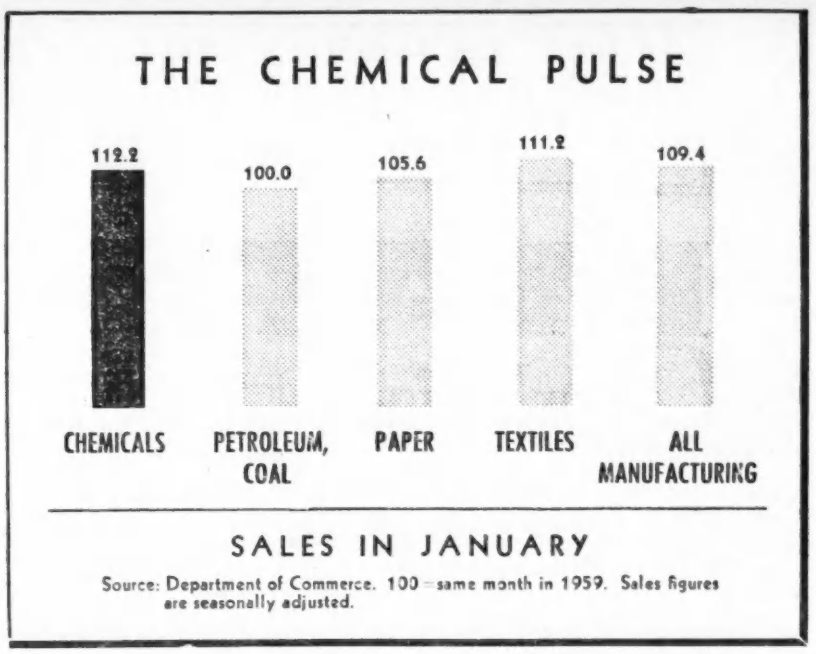

Export-Expansion Program

President Eisenhower pronounced a national export-expansion program in a special message to the congress March 17. In reporting that action, the chairman of the Interagency Export Promotion Task Force said: "We expect the program will stimulate more production, more sales, more jobs and more impetus to economic growth. Our exports should help raise the level of living of our foreign customers. Characteristics of the program include a high priority in government policy henceforth to be given to export expansion —a higher plateau of interest and activity by respective government agencies, and a broader participation in export promotion by private enterprise on a sustained basis. Government can assist—and will assist more than ever; but, in the last analysis, business itself must make and sell the goods."

In keeping with that closing statement, the Secretary of Commerce announced plans for a series of conferences to be held with representatives of a cross-section of US industry "to obtain first-hand advice on specific moves the government might undertake to give assistance to American private industry in increasing sales of US products abroad." The objective is to get suggestions as to "specific reductions in foreign import restrictions which they believe would be of greatest benefit to exporters of their particular line of products." The department also desires to get the views of industry on the establishment of overseas trade centers for display of US goods, the need for expanded credit facilities, and wider dissemination of information on export opportunities.

The first conference was held March 1, with the motion picture industry, the spokesman for which said that more than 50 percent of its revenues come from overseas by way of rentals for films. But, he also presented a long list of handicaps under which the industry must operate abroad. They include high taxes, quotas, "discriminatory or confiscatory" import duties and remittance limitations, not more than ten other countries permitting the industry to remit its revenues to this country.

A week later, conferees from the machine-tool industry declared that, among the trade handicaps they face abroad, are quotas, licensing, import taxes and tariffs; but, they admitted that the big handicap to sales abroad is the price advantage which foreign manufacturers have. The industry arranged to supplement the contributions of its conferees with written statements pinpointing the extent to which it is subjected to restricted trade policies in specific countries.

The third conference, March 15, was with representatives of manufacturers and associations in the photographic and projection equipment industry. Representatives of the pulp and paper industry were heard March 22. In large part their information had to do with tariff restrictions; the data thus provided are expected to be particularly helpful to Americans in their negotiations under the General Agreement on Tariffs and Trade, beginning at Geneva this coming fall. It is expected that they will be substantially supplemented by what it contributed by conferees to the hearings for other industries which will have been held by that time. It certainly behooves all industries which will be heard—forty conferences are planned—to prepare and present a complete detailed overall picture of what they have run up against in any efforts to sell more goods in foreign markets—not omitting the self-imposed handicaps.

The Secretary of Commerce told the convention of the International Executives Association in New York a fortnight ago how he thought "sales abroad make jobs at home." He did not, however, present any information that was in any way indicative that such sales would—or could—contribute substantially to the covering of the cost of those jobs. The official pronouncements have had almost wholly to do with the removal of "discriminatory restrictions" imposed by foregin governments. They set forth quite justly that "business singlehanded would never be able to convince foreign governments to lower the bars; but, today the administration is using all of its many means to convince our foreign friends to let their own people purchase more American goods to increase their own standard of living." But, they do not take up the basically discriminatory handicap imposed by the high cost of production in this country.

The Export-Import Bank has a new program of guarantees of noncommercial risks for short-term commercial credits, and has announced participation with commercial banks in medium-term credits. Official comment has had it that guarantees covering political risks are expected to go into effect within a few months. Short-term or medium-term credits are of little service for US exporters whose higher prices make long-term credits imperative.

Something will have to be worked out in any export-expansion program to clear up the puzzling situation popularly referred to as "the dollar shortage." That cannot be improved by the dealing out—more or less fairly and honestly—of our dollars. It is a matter of trade, aid, not the handout type. One of the most promising proposals on governmental assistance in that direction—where there is an actual need for some such socialization or nationalization of business—is that exporting be put on a basis of barter, with the government subsidizing the exporter for the difference between the price he must ask for a given article and what the other party to the deal can get it for from a seller in some other country.

Because exporting requires basically that business (private enterprise) must make and sell the goods, business in this country has a lot to learn on the selling end.

The Health-Help Outlook

The more one reads about the politically pertinent and pharmaceutically promising palavering over whether the federal government should adopt a plan for helping the aged to have better health opportunities, the less he knows about how such an objective could be attained. Will it necessitate the development of a system of health service more or less similar to that which has been in practice in Britain for several years? Because the American Medical Association is opposed to the plans thus far proposed, there is much reason to doubt that any such a set-up could be satisfactorily developed.

One of the particularly significant aspects of the campaign for such health help is the conflict between the nation's two mighty big strong "unions." The medical organization is opposed to it. Organized labor is strongly in favor of it. There is at least more than a trace of significance in the fact that, in the home town of the medical group on the same day that the Secretary of Health, Education & Welfare announced that, within a few days, he was going to "set up plans for calling in experts from outside of government who are acquainted with these problems; I hope we can move it along at a truly fast clip," under the auspices of the auto workers organization, the three most-mentioned candidates for the Democratic Presidential nomination endorsed the movement—two of them have introduced a bill in the senate with that objective.

At the same time, three Republican senators announced that they were preparing still another bill, designed to meet the needs at which the pending measures were aimed, but giving more emphasis to voluntary participation and due consideration for the private organizations which are providing a similar service.

There is a strong expectation that a bill along the latter lines will be passed by congress before it adjourns for election-year purposes. Whether the President would veto it is a question in some circles; but the general feeling is that he would not if the proposers' ideas are maintained in its language. What would be the reaction of the American Medical Association nobody is even guessing at. But, there is a general feeling among those who have any concern that the professional implementation of such voluntary service would be fully and satisfactorily adequate.

Washington Talks It Over

Department of Agriculture's Coyness About Just Where It Stands on the Delaney Anti-Cancer Clause Turned Out to Be a Surprise to Members of the House Commerce Committee.

By Ralph L. Cherry
Washington Editor

Members of the house commerce committee found they had more than a little surprise in store for themselves last month when the Department of Agriculture refused to take a position on the Delaney anti-cancer clause in the food additives law and the pending color bill.

It had been pretty much of an open secret that the department and Secretary of Health, Education & Welfare Arthur Flemming did not see eye to eye on administration of the clause, since agricultural officials had gone before the house appropriations committee only three weeks previously and made their position clear.

They wanted some flexibility in administration of the clause. This is the way Ervin L. Peterson, assistant Secretary of Agriculture put it:

"We in agriculture feel that in this complex field and the administration of laws related to it, there must be a place for the exercise of the best informed scientific and professional judgment that is obtainable.

"It is our understanding that the decisions presently being made with respect to the food and drug laws, and with particular reference to the Delaney amendment, that this point of view of Agriculture is not the point of view held by the Department of Health, Education & Welfare; that their point of view is that there is no room under the laws for the exercise of the best scientific and professional judgment in the making of decisions under those laws."

Dr. M. R. Clarkson, associate administrator of Agricultural Research Service, hinted as broadly as he could to the house commerce committee that Mr. Peterson's remarks still represented the department's position, but he couldn't go any further than that for a very good reason.

Between the time of the two visits to the Capitol by Agriculture officials on the same subject, the White House had ordered a study of the whole question of safety of food additives. The department wants to be in a position to change its official views on the Delaney clause in the light of whatever recommendations the White House study comes up with.

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Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and April 1 on large lots, f.o.b. New York, with the lowest the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low may be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

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Acetoacet-o-chloroanilide, fib. dms., c.l., dlvd lb. 1.35 - —
fib. dms., l.c.l., dlvd ..... lb. 1.36 - —
Acetoacet-o-toluidide, fib. dms., c.l., dlvd lb. .82 - —
fib. dms., l.c.l. dlvd ..... lb. .83 - —
Acetone, CP, dms., c.l., dlvd lb. .11 - —
dms., l.c.l., dlvd ..... lb. .12½- —
tanks, dlvd. ..... lb. .08½- —
Acetonitrile, dms., c.l., t.l., dlvd lb. .35 - —
oms., l.c.l., dlvd ..... lb. .36½- .37
tanks, dlvd. ..... lb. .32 - —
Acetophenetidin, USP, 200-lb. dms., 1,000 lbs., frt. alld lb. 1.22 - —
100-lb. dms., 1,000 lbs., frt. alld, lb. 1.24 - —
Acetophenone, cns., dms ..... lb. .42 - 1.30
Tech., dms., c.l., works .... lb. .37 - —
dms., l.c.l., works ..... lb. .37¾- —
tanks, works ..... lb. .35 - —
N-Acetyl-p-aminophenol, dms., t.l. (min. 25,000 lbs.), frt. adjusted lb. 1.24 - —
dms., smaller lots, same basis lb. 1.35 - 1.63
dms., 5,000-lb. lots, same basis lb. 1.30 - 1.45
Acetylene black, imp., bgs., c.l., duty and freight extra lb. .19 - —
cs., l.c.l., ex whse ..... lb. .24½- .30
Acetylene tetrabromide, 16-dm. lots or more, f.o.b. works lb. .53 - —
Acetylsalicylic acid, USP, special, makers, primary distr., bbls., 1,000-lb. lots, point of shipt. lb. .63½- —
USP, standard, fine, cryst., gran., (20-40 mesh) powd., (80 mesh.) 250-lb. bbls., c.l., t.l., same basis lb. .55¼- —
Freight equald, shipt. identical quantity over standard routes, from N.Y., Phila., Midland, Mich., Chicago and St. Louis.
Acetyltributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .35½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .36½- —
tanks, frt. alld. E. of Denver, lb. .33 - —
non-ret. dms., c.l., frt. alld. E. of Denver lb. .39½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .40½- —
tanks, frt. alld. E. of Denver lb. .37 - —

ACIDS

Acid quotations are listed individually. For example, prices on Acid, cresylic, may be found in the C's under Cresylic acid.

Aconite root, bls ..... lb. .50 - .55
Acrolein, tech., dms., c.l., works lb. .51 - —
dms., l.c.l. works ..... lb. .51¾- —
tanks, works ..... lb. .46 - —
Acrylamide, dms., t.l., f.o.b. works, lb. .58 - —
dms., l.t.l., same basis ..... lb. .60 - —
Acrylic acid, glacial, dms., c.l., t.l., frt. alld lb. .57 - —
dms., l.c.l., l.t.l., frt. alld .. lb. .58 - —
Acrylonitrile, dms., c.l., t.l., frt. equald lb. .26 - —
dms., l.c.l., l.t.l., frt. alld..... lb. .27 - —
tanks, frt. equald ..... lb. .23 - —

Abies Siberica Oil—Ammonium Bifluoride

Adeps lanae (see lanolin).
Adipic acid, bgs., c.l., dlvd..... lb. .32¼- —
bgs., l.c.l., dlvd. ..... lb. .35 - —
Agar, USP, Kobe No. 1, strip, bls, lb. 2.40 - 2.50
powd., 30 mesh., fib., dms lb. 2.40 - —
dl-Alanine, dms., 100-lbs. or more, f.o.b. works lb. 5.25 - —
dms., 1-99 lbs., same basis ... lb.10.00 - —
Aldol, 95%, dms., l.c.l., works lb. .28 - —
Aldrin, tech., fib, dms., c.l., t.l. dlvd lb. .99 - —
fib. dms., l.c.l., dlvd..... lb. 1.04 - —

ALCOHOLS

Alcohol quotations are listed individually. For example, prices on Alcohol, furfuryl, may be found in the F's under Furfuryl alcohol.

Aletris root, bgs ..... lb. 1.50 - 1.75
Algin (see Sodium alginate)
Alizarin (see 1,2-Dihydroxy anthraquinone).
Alkali blue dry, 250-lb. bbls., dlvd. E. of Rockies lb. 2.38 - —
Alkali blue, toner, litho flushed, 125-lb. bbls., same basis, lb. 1.35 - —
Alkali blue prices 1c. higher W. of Rockies.
Allethrin, 90%, dms., frt. alld lb.28.80 -28.90
Soln., 20%, dms., 200-2,000 lb. lots, frt. alld lb. 6.50 - 6.55
2½% dms. frt. alld. ..... lb. .95 - 1.10
Allspice oil (see Pimento oil).
Allyl alcohol, dms., c.l. dlvd..... lb. .32½- —
dms., l.c.l., dlvd..... lb. .34 - —
tanks, dlvd. ..... lb. .30 - —
Allyl bromide 55-lb. cbys. 5,005 lbs. or more, works lb. 1.47 - —
55-lb. cbys., 1,045 to 4,950 lbs., works lb. 1.52 - —
55-lb. cbys., 55 to 990 lbs. works, lb. 1.57 - —
Allyl chloride, dms., c.l., dlvd.... lb. .17½- —
dms., l.c.l., dlvd ..... lb. .19 - —
tanks, dlvd. ..... lb. .15 - —
Allyl isothiocyanate (see Mustard Oil, syn.).
Almond oil, artif., bitter (see Benzaldehyde)
Almond oil, nat., bitter, f.p.a., bots, lb. 2.75 - 3.45
NF, bots. ..... lb. 3.00 - 3.30
sweet, USP, cns., dms..... lb. .70 - 1.30

Abbreviations

Used in OPD Market Quotations

alld.	allowed	distr.	distributor	No.	number
amorph.	amorphous	djns.	demijohns	nom.	nominal
AMP	American melting point	dlvd.	delivered	o-	ortho
anhyd.	anhydrous	dms.	drums	ord.	ordinary
AOAC	Association of Official Agricultural Chemists	dom.	domestic	oz.	ounce
		E.	east	p-	para
		e.p.	end point	Pac.	Pacific
a.p.a.	available phosphoric acid	equald.	equalized	pf.	proof
		exp.	expressed	phos.	phosphate
approx.	approximately	Ext.	external	photo.	photographic
artif.	artificial	F.	fahrenheit	pkgs.	packages
ASTM	American Society for Testing Materials	ferment.	fermentation	powd.	powdered
		f.f.a.	free fatty acid	precip.	precipitated
		f.f.c.	free from chlorine	prod.	producer
Atl.	Atlantic	fib.	fiber	pt.	point
Be.	Baume	f.o.b.	free on board	pulv.	pulverized
bbls.	barrels	f.p.a.	free of prussic acid	purif.	purified
bgs.	bags	frt.	freight	redist.	redistilled
bls.	bales	gal.	gallon	refd.	refined
bots.	bottles	gran.	granular	refy.	refinery
b.p.	boiling point	grd.	ground	reg.	regular.
b.p.l.	bone phosphate of lime	i.&a.	iron and aluminum	resub.	resublimed
				ret.	returnable
b.r.	boiling range	i.b.p.	initial boiling point	SD	specially denatured
bxs.	boxes	imp.	imported	s.d.	single distilled
C.	centigrade	incl.	included	S.E.	southeast
cbys.	carboys	indust.	industrial	sec.	secondary
CD	completely denatured	kgs.	kegs	secs.	seconds
		l-	laevo	s.g.	specific gravity
c.i.f.	cost, insurance, freight	lacq.	lacquer	shipt.	shipment
		lb.	pound	soln.	solution
cks.	casks	l.c.l.	less carlots	s.u.	standard unit
c.l.	carlots	l.t.l.	less truckload	syn.	synthetic
cns.	cans	liq.	liquid	tanks.	railroad tankcars
coml.	commercial	mfrs.	manufacturers	tech.	technical
conc.	concentrated	m-	meta	tert-	tertiary
CP	chemically pure	m.a.p.	mixed aniline point	t.l.	truckloads
cps.	centipoises	min.	minimum	t.w.	tankwagons
cryst.	crystalline	m.p.	melting point	USP	U. S. Pharmacopoeia
cs.	cases	N-	nitrogen		
ctns.	cartons	n-	normal	vis.	viscosity
cyls.	cylinders	nat.	natural	VM&P	varnish makers & painters
d-	dextro	neut.	neutral		
dbl.	double	NF	National Formulary	W.	west
denat.	denatured	NNR	New and Nonofficial Remedies	whse.	warehouse
dest-dist.	destructively—distilled			w.w.	water-white
dl-	dextro-laevo				
dist.	distilled				

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Aloe, Cape, cs ..... lb. .30 - .35
powd., cs. ..... lb. .60 - .65
Curacao, kgs. ..... lb. .60 - .70
powd., kgs. ..... lb. .65 - —
Aloin, USP, bbls., dms., kgs ... lb. 3.25 - 3.75
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene).
Alphapicoline (see a-Picoline).
Alphaterpinol (see a-Terpinol).
Alphatocopherol (see a-Tocopherol).
Alum ammonium, gran., bgs., works. 100 lbs. 4.30 - —
Lump, dms., works ..... 100 lbs. 5.05 - —
Powd., dms., works ..... 100 lbs. 5.20 - —
USP, burnt., dms ..... lb. .20 - .21
hydrous, dms. ..... lb. .07¾- .08
Alum potassium, gran., bgs., works. 100 lbs. 4.55 - —
Lump, dms., works ..... 100 lbs. 5.30 - —
Powd., dms., works ..... 100 lbs. 5.45 - —
USP, burnt., dms ..... lb. .20 - .21
USP, hydrous, dms ..... lb. .07¾- .08
Alum, potash-chrome, dms ..... lb. .17 - —
Alumina, calcined, bgs., c.l., works, lb. .05¼- —
bgs., l.c.l., works ..... lb. .05½- .06¼
Aluminum acetate, basic soln., 24%, bbls., l.c.l. works lb. .14 - —
Aluminum chloride, coml., anhyd., dms., c.l., works, frt. equald lb. .16 - —
dms., l.c.l., works ..... lb. .16½- —
cryst., dms., c.l., works ... 100 lbs.21.00 - —
dms., l.c.l., works ..... 100 lbs.21.50 - —
Soln., 32° cbys., c.l., works ... lb. .0495- —
cbys., l.c.l., works ..... lb. .0570- .1055
tanks, works ..... 100 lbs. 3.95 - —
NF, gran., dms., works ..... lb. .31 - .32
Aluminum fluoride, tech., anhyd., bgs., c.l., works lb. .16¼- —
bgs., l.c.l., works ..... lb. .17¼- .19¼
bulk, c.l., basis 80% ..... lb. .14½- —
Aluminum fluoride in fib. dms. 0.35c. per lb. higher.
Aluminum formate, basic soln., containers extra, c.l., works. 100 lbs.11.00 - —
containers extra, l.c.l., works. 100 lbs.11.50 - —
Aluminum hydrate, heavy, bgs., c.l., frt., equald lb. .0365- —
bgs., 20,000-40,000 lb. lots, same basis lb. .039 - —
bgs., 2,000-20,000 lb. lots, same basis lb. .040 - —
bulk, c.l., same basis ..... lb. .03¼- —
Aluminum hydroxide, dried, USP XV, fib. dms., works lb. .82½- —
fib. dms., contract, works lb. .79½- —
Aluminum hydroxide, gel, pharmaceutical, 14-15% Al_2O_3, fib. dms., works lb. .22 - —
8-9½% Al_2O_3, fib. dms., works, lb. .19 - —
fib. dms., contract, works lb. .18 - —
Aluminum hydroxide, tech., powd., (see Aluminum hydrate).
Aluminum metal, 99½% + 30-lb. ingots, 10,000-lb. lots, frt. alld lb. .2610- —
50-lb. pigs, 10,000-lb. lots, frt alld, lb. .26 - —
Aluminum oxide, amorphous (see Alumina, calcined).
Aluminum paste, lining, extra-fine, dms lb. .71 - —
Standard grade, dms ..... lb. .48½- —
Aluminum powder, lining, extra-fine, dms lb. 1.13 - —
Standard grade, dms ..... lb. .63 - —
Aluminum paste and powder prices are f.o.b. shipping point. Add 1c. per lb. for 100-lb. dm., 1½c. per lb. for 50-lb. dm., 3c. per lb. for 10 lb. can and 5c. to 12c. per lb. for smaller containers. Deduct 1c. per lb. for single shipment of 400 to 1,499 lbs. 2c. for 1,500 to 4,998 lbs., 3c. for 5,000 to 29,999 lbs. and 4c. for 30,000 lbs. or more. Where destination is within the continental U. S., a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs. or more.
Aluminum resinate, precip., 3.4% Al, dms lb. .40¼- —
Aluminum stearate, dibasic, ctns., c.l lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Monobasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Tribasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Aluminum sulfate, coml., grd., bgs. c.l., works, frt. equald ton.41.00 - —
bulk, c.l., same basis ..... ton.40.00 - —
lump, bgs., c.l., same basis ton.44.00 - —
iron-free, bgs., c.l., works, frt. equald..100 lbs. 3.80 - —
bgs., l.c.l., works, frt. equald, 100 lbs. 4.30 - 5.50
USP, gran., 400-lb. dm., works, lb. .30 - —
USP, powd., dms., works ..... lb. .27 - —
Aluminum sulfate prices $1 per ton higher in the South.
Aluminum trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots ..... oz. 6.50 -10.00
P-Aminoacetanilide, tech., paste, dms., frt. alld..lb. 1.57 - —
Aminoacetic acid, NF, bbls., frt. adjusted lb. 1.50 - 1.75
Aminoazotoluene base, bbls., 100% basis lb. 1.03 - 1.18
p-Aminobenzoic acid, tech., dry, dms., works lb. 1.72 - —
2-Amino-4-chlorophenol, tech., solid, dms., frt. alld lb. 8.10 - —
p-Aminodiphenylamine, tech., solid, dms., frt. alld lb. 3.00 - —
Aminoethyl ethanolamine, dms., c.l., dlvd. lb. .475 - —
dms., l.c.l., dlvd ..... lb. .49 - —
tanks, dlvd. ..... lb. .45 - —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld. lb. .44 - —
dms., l.c.l., frt. alld. ..... lb. .45 - —
tanks, frt. alld. ..... lb. .42 - —
m-Aminophenol, dist., dms., ton lots, lb. 2.05 - —
dms., smaller lots. ..... lbs. 2.50 - —
p-Aminophenol, dms., frt. alld. lb. 1.15 - —
Aminophylline, USP, 100-lb. dm., frt. alld lb. 3.25 - —
p-Aminosalicylic acid, dms., 100 lbs. or more, frt. adjusted lb. 3.40 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald, E. of Rockies ..ton.88.00 - —
refrigeration, tanks, works, frt. equald, E. of Rockies ..ton.90.50 - —
Aqueous, 29.4%, tanks, works, anhyd. basis, E. of Rockies. ton.91.00 - —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal., gray, bgs., c.l., works, frt. equald ..100 lbs. 8.25 - —
bgs., l.c.l., same basis ..100 lbs. 8.65 -12.65
Ammoniac, sal., white (see Ammonium chloride, tech.)
Ammonium acetate, purif., dms lb. .60 - —
Ammonium benzoate, USP, fib. dms. ton lots, works lb. 1.00 - —
fib dms. 1,000-lb. lots, works, lb. 1.05 - —
Ammonium biborate, gran., dms., cl., works ton.325 - —
dms., ton lots, ex whse. 100 lbs.20.40 - —
dms., smaller lots, ex whse. 100 lbs.21.15 - —
Ammonium bicarbonate, dom., dms., c.l., works ..100 lbs. 7.00 - —
dms., l.c.l., works ..... 100 lbs. 9.00 - —
Ammonium bichromate, dms., works, lb. .42 - .43
Ammonium bifluoride, dms., dlvd lb. .2145- .2245

Ammonium bromide, NF, gran., dms., c.l., t.l., frt. equald lb. .44 - —
dms., l.c.l., same basis lb. .46 - —

Ammonium carbonate, USP, lump, dms., c.l. lb. .15¼- —

Ammonium chloride, white, tech., fine gran., bgs., c.l., works, 100 lbs. 5.75 - —
bgs., l.c.l., works 100 lbs. 7.75 - 8.20
USP, gran., 250-lb. dm lb. .17¼- —

Ammonium citrate, dibasic, 250-lb. dm, f.o.b. works lb. .77 - —

Ammonium dichromate (see Ammonium bichromate)

Ammonium fluoride (see Ammonium bifluoride)

Ammonium gluconate, tech., 200-lb. dm., f.o.b. works E lb. .45 - —

Ammonium hydroxide (see Ammonia aqeous).

Ammonium iodide, NF, 25-lb. jar, f.o.b. works lb. 4.26 - —

Ammonium lauryl sulfate, dms., c.l., frt. alld lb. .20½- —
dms., l.t.l., frt. alld lb .21½- —
tanks, frt. alld lb. .19½- —

Ammonium lignin sulfonate, bgs., c.l., works 100 lbs. 3.25 - —
bgs., l.c.l., works 100 lbs. 3.40 - 3.65

Ammonium linoleate, 80%, dms., works lb. .50 - .55

Ammonium molybdate, CP, cryst., 400- lb. dms., 15,000-lbs. works, lb. 1.22 - —
400-lb. dms., 2,000-lb. contracts, works lb. 1.23 - —
400-lb. dms., works lb. 1.24 - —

Ammonium nitrate, dom., fertilizer grade, 33.5% N, bgs., f.o.b. works ton.68.00 - —
with dolomite, 20.5% N, bgs., c.l., Hopewell, Va. ton.48.00 - —

Ammonium nitrate, imp., Canadian, 33.5% N, eastern, bgs., c.l., ship't point, frt. equald to $3 ton base price ton.68.00 - —

Ammonium oxalate, tech., fine gran., 250-lb. dm., f.o.b. works E lb. .28½- —
Tech., powd., 200-lb. dm., same basis lb. .28½- —

Ammonium pentaborate, gran., bgs., c.l., works ton.193.00 - —
bgs., ton lots, ex whse 100 lbs.14.23 - —
bgs., smaller lots, ex whse. 100 lbs.15.48 -17.48

Ammonium pentaborate powder $10 per ton higher in bags.

Ammonium persulfate, tech., dms., 10-ton lots or more, works lb. .18 - —
dms., smaller lots, works lb. .20 - .23

Ammonium phosphate, coml., bgs., c.l., works, frt. equald lb. .09¼- —
bgs., l.c.l., same basis lb. .10 - —
Dibasic, NF, V, bbls., dms lb. .46 - —
Dibasic, tech., bgs., c.l., works, frt. alld lb. .09¼- —

Ammonium silicofluoride, dms., works lb. .12¼- .13¾

Ammonium sulfamate, bgs., c.l., t.l., works lb. .19 - —
bgs., l.c.l., works lb. .20½- .27

Ammonium sulfate, standard granular, bulk, f.o.b. works, base price ton.32.00 - —
purif., c.l., 100-lb. bgs., f.o.b. works lb. .08½- —
Large granular, bulk, c.l., works, ton.35.00 - —
bgs., c.l., works ton.40.00 - —
Tech., bulk, c.l., t.l., works ton.52.00 - —
bgs., c.l., t.l., works ton.56.00 - —
bgs., l.c.l., l.t.l., works 100 lbs. 3.20 - 5.20

Ammonium sulfide, liq., 40-44%, tanks, frt. equald., 100% basis, ton.160.00 - —

Ammonium sulfocyanide, tech. (see Ammonium thiocyanate).

Ammonium thiocyanate, tech., cryst., dms., c.l., works lb. .20 - —
dms., l.c.l., works lb. .22 - .26

Tech. soln., 50%, tanks, frt. equald., basis ammonium thiocyanate content lb. .17¼- —

Ammonium thioglycolate, coml., 55-gal. dms., ton lots, 100% basis lb. 1.15 - —

d-Amphetamine hydrochloride, monobasic, dms lb.17.50 -23.50

dl-Amphetamine hydrochloride, dibasic, dms lb. 4.50 - 6.00

d-Amphetamine phosphate, fib. dms., 100-lb. lots lb.15.00 - —

dl-Amphetamine phosphate, dms. lb. 4.20 - 5.60

d-Amphetamine sulfate, fib. dms. lb.15.00 -17.00

dl-Amphetamine sulfate, fib. dms., lb. 4.20 - 5.60

Amyl acetate, ex fusel oil, tech., dist., from 125° to 150°C., dms., c.l., frt. alld. E. of Rockies lb. .18½- .19
dms., l.c.l., same basis lb. .20 - .20½
tanks, same basis lb. .16 - .16½

Amyl acetate, ex pentane, reg., dms., c.l., divd lb. .19 - —
dms., l.c.l., divd. lb. .21½- —
tanks, divd. lb. .16½- —

tech., dms., c.l., divd. lb. .17 - —
dms., l.c.l., divd. lb. .18½- —
tanks, divd. lb. .14½- —

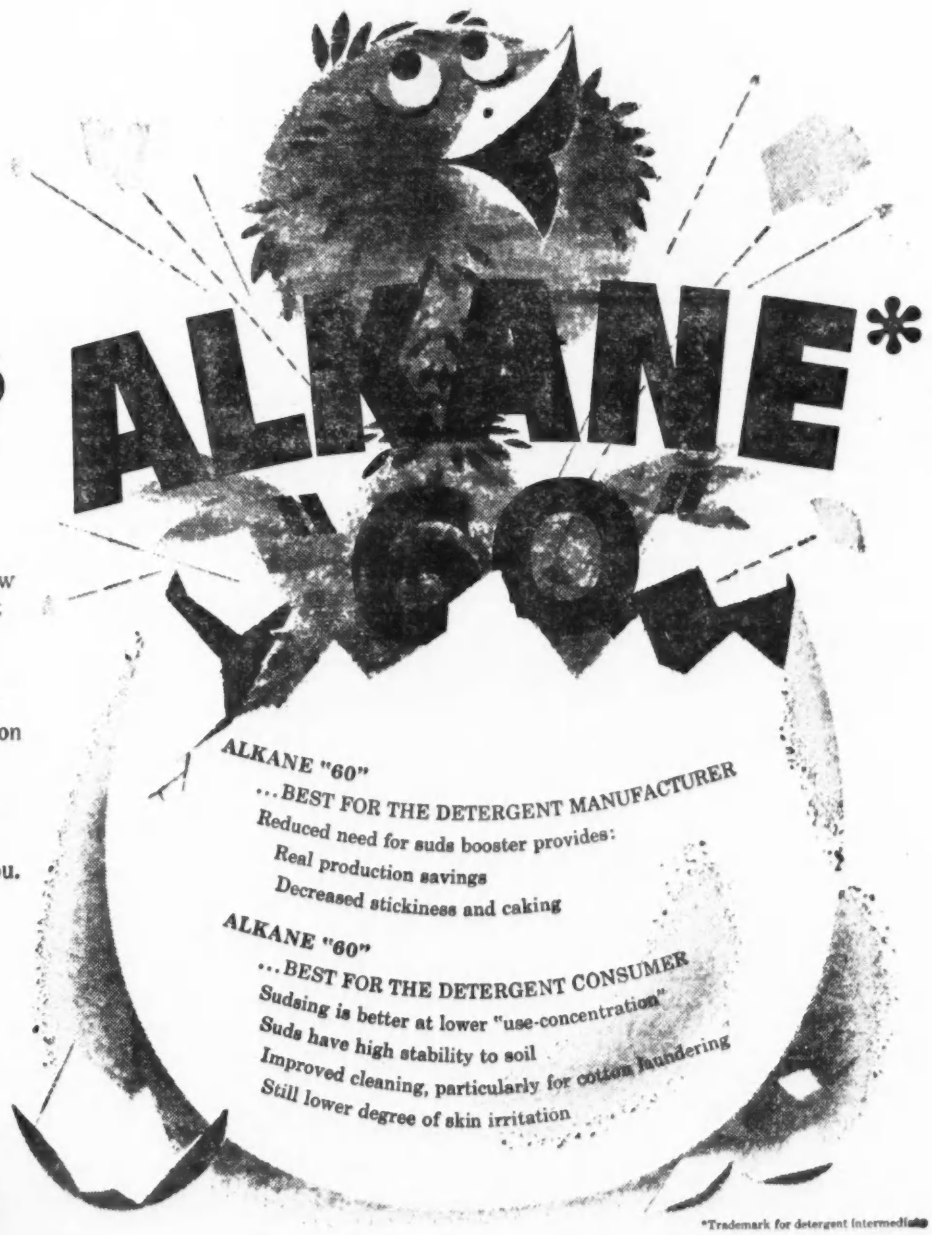
Amyl acetate, syn., oxo process, dms., c.l., divd lb. .19 - —
dms., c.l., divd. lb. .20½- —
tanks, divd. lb. .16½- —

Amyl alcohol, ex fusel oil (see Fusel oil refd).

Amyl alcohol, ferment, refd., 128°-132°C., dms., l.c.l., divd lb. .43½- —
refd., ACS grade, dms., l.c.l., divd lb. .45½- —
ex pentane, mixed amyls, dms., c.l., frt. alld lb. .19 - —
dms., l.c.l., frt. alld lb. .20½- —
tanks, frt. alld. lb. .16½- —
primary, dms., c.l., frt. alld, lb. .19¼- .20¼
dms., l.c.l., frt. alld. lb .21¼- .21¾
tanks, frt. alld. lb. .17¼- .17¾
Sec-synthetic, dms., c.l., works, frt. alld lb. .19 - —
dms., l.c.l., same basis lb. .20½- —
tanks, same basis lb. .17 - —
Tert-synthetic, dms., c.l., frt. alld. E lb. .17 - —
dms., l.c.l., frt. alld. E. lb. .18½- —
tanks, frt. alld. E. lb. .14½- —

Amyl alcohol, 1-pentanol (syn. normal), dms., c.l., works lb. .41½- —
dms., l.c.l., works lb. .43 - —
tanks, works lb. .39½- —
2-pentanol, dms., c.l., works lb. .65 - —
dms., l.c.l., works lb. .70 - —
tanks, works lb. .60 - —
Amyl n-butyrate, dms. lb. 1.00 - 1.25
Amyl cinnamic aldehyde, dms lb 1.70 - 2.20
p-tert Amyl phenol, dms., c.l., works, lb. .26¾- —
dms., l.c.l., works lb. .27¾- —

What's brand new?


ALKANE*
60
ALKANE "60"
...BEST FOR THE DETERGENT MANUFACTURER
Reduced need for suds booster provides:
Real production savings
Decreased stickiness and caking
ALKANE "60"
...BEST FOR THE DETERGENT CONSUMER
Sudsing is better at lower "use-concentration"
Suds have high stability to soil
Improved cleaning, particularly for cotton laundering
Still lower degree of skin irritation

You expect *more* from the leader, rightfully so. And now a new Oronite manufacturing process improves the leading detergent raw material—ALKANE—making it better than ever.

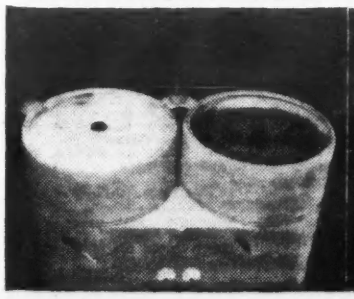
Oronite's new alkylate, ALKANE "60", eliminates some of the deficiencies of present dodecylbenzenes used in heavy duty detergents. Yet, ALKANE "60" retains the excellent sulfonation quality of ALKANE '56.

ALKANE "60" provides the user greater production economy plus superior product performance.

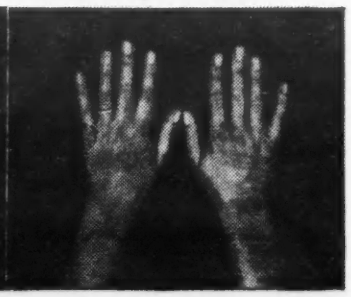
For complete information, contact the Oronite office nearest you.

*Trademark for detergent intermediate

Alkane "60" heavy duty formulations without suds boosters (left) show improved foaming in soft water compared to dodecylbenzene based products (right).



Alkane "60" based products are less irritating to the skin.



ORONITE CHEMICAL COMPANY
A CALIFORNIA CHEMICAL COMPANY SUBSIDIARY
EXECUTIVE OFFICES • 200 Bush Street, San Francisco 20, California
SALES OFFICES • New York, Boston, Wilmington, Chicago, Cincinnati, Cleveland, Houston, Los Angeles, San Francisco, Seattle
Foreign Affiliate: California Chemical International, Inc., San Francisco, Geneva, Panama

Amyl salicylate, cns., dms. ... lb. .73 - 1.08
Amyris oil, dms. ... lb. 1.65 - 2.05
Anethole, tech., dms. ... lb. .92 - 1.00
USP, cns., dms. ... lb. 1.12 - —
Angelica root, bls. ... lb. .90 - 1.00
Angelica root oil, bots. ... lb. 120.00 - 140.00
Angelica seed oil, bots ... lb. 120.00 - 130.00
Aniline dms., c.l., frt. alld ... lb. .20 - —
dms., l.c.l., frt. alld. ... lb. .21 - —
tanks, frt. alld. ... lb. .18 - —
Aniline oil (see Aniline).
Aniline salt, dms., c.l., t.l., 20,000 lbs. min., frt. alld lb. .33 - —
dms., l.c.l., same basis ... lb. .35 - —
Anise oil, USP, dms. ... lb. 1.75 - 3.00
Anise seed, Mexican, bgs. ... lb. .16 - —
Spanish, bgs. ... lb. .16½ - —
Anisic aldehyde, dms ... lb. 1.50 - 2.20
o-Anisidine, dms., c.l., frt. alld lb. .80 - —
dms., l.c.l., same basis ... lb. .82 - —
tanks, same basis ... lb. .78 - —
p-Anisidine, dms., works ... lb. .97 - —
Anthracene, 90-95%, dms., c.l., t.l. f.o.b., works lb. .42½ - —
dms., l.c.l., minimum shipment 1,000 lbs., same basis lb. .45 - —
Anthranilic acid, 99%, 150-lb. dms., dlvd lb. 1.15 - —
Anthraquinone, 99.5%, bbls., c.l., frt alld lb. .83 - —
bbls., l.c.l., same basis lb. .86 - —
Electrical grade, bbls., l.c.l., same basis lb. 1.10 - —
Antimony butter (see Antimony trichloride).
Antimony metal, bulk, c.l., mines, lb. .29 - —
cs., c.l., mines ... lb. .29½ - —
Antimony oxide, bgs., c.l., frt. alld, lb. .26½ - —
bgs., l.c.l., frt. alld. ... lb. .28 - —
Prices of antimony oxide are 2% higher west of the Rockies.
Antimony sulfide, approx. 65%, bgs., 10,000-lb. lots, dlvd lb. .23 - —
bgs., smaller lots, dlvd ... lb. .24 - .26
Antimony trichloride, anhyd., solid, pails, c.l., works lb. .41 - —
pails, l.c.l., works lb. .43 - —
Antimony-potassium tartrate, tech., powd., 250-lb., dm., f.o.b. works, E lb. .69½ - —
USP, powd., 250-lb. dm., same basis lb. .74½ - —
Apomorphine hydrochloride, USP, bots., 25-oz. lots oz. 35.60 - —
Apricot kernel oil, USP, dms lb. .70 - 1.25
Arabic gum, amber sorts, 10 bgs. lb. .24 - .27
USP, powd., bbls. ... lb. .29 - .30
Areca nuts, powd., bbls. ... lb. .13 - —
Arecoline hydrobromide, NF, bots., tins, 100 oz. or more oz. 4.00 - —
l-Arginine, free base, dms., 10-kilo lots or more kilo. 90.00 - —
l-Arginine glutamate, dms., 10-kilo lots or more kilo. 60.00 - —
l-Arginine monohydrochloride, dms., 10-kilo lots or more kilo. 60.00 - —
Arnica flowers (true Montana), bls. lb. .75 - —
Aromatic petroleum solvents (see Solvent Naphtha, petroleum, aromatic).
Arsenic, crude (95%), bulk, c.l., works lb. .016 - —
bbls., c.l., works ... lb. .031 - —
Arsenic trioxide, NF, powd., dms., 300-lbs., f.o.b. works lb. .48 - —
Arsenic, white, powd., bbls., c.l., works lb. .04½ - —
bbls., l.c.l., works lb. .06½ - .07½
Arsenous acid, tech. (see Arsenic, white).
Arsenous acid, USP (see Arsenic trioxide).
Arylid maroons, deep shades, bbls. lb. 3.70 - —
Light shades, bbls. ... lb. 2.85 - —
Asafetida gum, cns ... lb. .36 - .40
Powd., bbls., dms ... lb. .75 - .80
Asbestine (see Talc, fibrous, New York).
Asbestos, Canadian crude
6D, c.l. (30 tons), mines ton. 80.00 - —
7D, c.l. (30 tons), mines ton. 75.00 - —
7F, c.l. (30 tons), mines ton. 71.00 - —
7H, c.l. (30 tons), mines ton. 61.00 - —
7K, c.l. (30 tons), mines ton. 50.00 - —
7M, c.l. (30 tons), mines ton. 44.00 - —
7R, c.l. (30 tons), mines ton. 43.00 - —
7FF, c.l. (30 tons), mines ton. 44.00 - —
7T, c.l. (30 tons), mines ton. 41.00 - —
7TF, c.l. (30 tons), mines ton. 44.00 - —
Asbestos prices are in Canadian funds; l.c.l. lots $4 per ton higher.
Ascorbic acid, USP, dms., 100-kilos. kilo. 7.50 - —
dms., less than 100-kilos kilo. 7.75 - —
Ash, black (see barium sulfide).
Asphalt, gilsonite, black jet, bgs., c.l., mines ton. 40.00 - —
ex-whse. N. Y., N. J. ton. 86.50 - —
seconds, 300°-390° F. fusing pt., bgs., c.l., mines ton. 35.00 - —
select, 350° F. fusing pt., bgs., c.l., mines ton. 41.00 - —
270°-295° F. fusing pt., bgs., c.l., mines ton. 40.00 - —
Manjak No. 10 crude, dms., works. lb. .07 - —
Petroleum, cut-back, tanks, tankwagon, refy gal. .09½ - —
emulsion, tanks, tankwagon, refy. gal. .09½ - —
steam-refd., 50-80 penetration, tanks, tankwagon, refy ton. 21.00 - —
85-300 penetration, tanks, tankwagon, refy ton. 20.00 - —
Aspirin (see Acetylsalicylic Acid).
Atropine, NF, tins ... oz. 5.75 - 7.50
Atropine sulfate, USP, bots ... oz. 5.25 - 5.75
Azelaic acid, bgs., c.l., dlvd. ... lb. .40 - —
bgs., ton lots, same basis ... lb. .41 - —

B

Bacitracin, bulk, 1,000,000,000 or more units 50,000 units. .65 - —
less than 1,000,000,000 units, 50,000 units. .70 - —
Balm of Gilead buds, dried, bgs lb. 1.25 - 1.35
Barberry root bark, bgs ... lb. 1.00 - 1.10
Barbital, NF, 100-lb. dms., f.o.b. works lb. 4.50 - —
Barbital sodium, NF, 100-lb. dms. lb. 4.75 - —
Barium carbonate, precip., bgs., c.l., works ton. 111.50 - —
bgs., smaller lots, works ton. 126.50 - —
Barium chlorate, dms., works lb. .32 - .41
Barium chloride, anhyd., bgs., c.l., works ton. 176.00 - —
bgs., l.c.l., works ton. 196.00 - —
NF, cryst., dms., 400-lbs., works lb. .23 - —
Tech., cryst., bgs., c.l., works. 100 lbs. 7.00 - —
bgs., l.c.l., works ... 100 lbs. 8.00 - —
Barium chromate, bgs., frt. equald. lb. .38 - —
Barium dioxide (see Barium peroxide).
Barium hydrate, cryst., bgs., c.l. t.l., frt. equald ton. 208.00 - —
bgs., l.c.l., t.l., frt. equald ton. 218.00 - —
Barium monohydrate, 99%, bgs., c.l., frt. equald 100 lbs. 11.25 - —
bgs., l.c.l., frt. eqdald 100 lbs. 11.75 - —
Barium monoxide (see Barium oxide).
Barium nitrate, bbls., c.l., t.l., dlvd. lb. .16 - —
bbls., l.c.l., l.t.l., dlvd. ... lb. .17 - —
Barium oxide, grd., dms., c.l., t.l., frt equald ton. 275.00 - —
dms., l.c.l., l.t.l., frt. equald ton. 285.00 - —
Barium peroxide, dms., frt. equald. lb .20 - —
Barium stearate, ctns., c.l., frt. alld. lb. .41 - —
ctns., l.c.l. same basis ... lb. .42 - .46
Barium sulfate, tech. (see Barytes and blanc fixe).
Barium sulfate, X-ray, 100-lb. dm. lb. .19½ - —
Barium sulfide, dms., c.l., works. ton. 100.00 - —
dms., l.c.l., works ... ton. 110.00 - —
Barytes, southern, off-color, bgs., mines ton. 25.00 - —
95-75%, bgs., mines ton. 25.00 - —
white, water-grd., paper bgs., c.l., St. Louis ton. 55.00 - 55.25
paper bgs., ex whse., New York ton. 79.85 - —
Battery acid, cbys., c.l., works E. 100 lbs. 2.35 - —
cbys, l.c.l., works, E ... 100 lbs. 2.65 - 10.95
Bauxite, bulk, mines ... ton. 7.00 - 10.00
Bay oil, NF, Puerto Rican, 50-55%, cns lb. 2.40 - 2.70
55-60%, cns. ... lb. 2.50 - 3.05
NF, West Indian, 50-55%, cns., dms lb. 2.35 - —
Bayberry wax, bgs ... lb. .45 - .50
Beeswax, crude, African bgs. ... lb. .50 - .52
Brazilian, bgs. ... lb. .55 - .56
Central American, bgs ... lb. .53 - —
Chilean, bgs. ... lb. .56 - —
Refd., USP, bleached white, bricks, 100-lb. ctns lb. .69 - .71
white, slabs, 100-lb. ctns lb. .68 - .70
yellow, bricks, 100-lb. ctns lb. .59 - .61
yellow, slabs, 100-lb. ctns lb. .58 - .60
Belladonna leaf, bls. ... lb. .24 - .26
Belladonna root, bls. ... lb. .28 - .35
Bentonite, dom. 200 mesh, bgs., c.l., mines ton. 14.00 - —
Imp. Italian, white, high gel., bgs., 5-ton lots, ex whse ton. 95.20 - —
bgs., 1-ton lots, ex whse ton. 99.00 - —
Imp. Italian, white, low gel., bgs., 5-ton lots, ex whse ton. 93.40 - —
bgs., 1-ton lots, ex whse ton. 97.16 - —
Benzal chloride, cbys., works lb. .44 - —
Benzaldehyde, NF, cms ... lb. .80 - 1.05
Tech., dms., c.l., t.l. ... lb. .47 - —
dms., l.c.l. ... lb. .48 - —
Benzene, coaltar, pure or nitration, tanks, works:
Bethlehem, Pa ... gal. .34 - —
Birmingham district ... gal. .34 - —
Chicago district ... gal. .34 - —
Cleveland district ... gal. .34 - —
Geneva, Utah ... gal. .34 - —
Johnstown, Pa. ... gal. .34 - —
Lackawanna, N. Y. ... gal. .34 - —
Lone Star, Tex ... gal. .34 - —
Lorain, Ohio ... gal. .34 - —
Middletown, Ohio ... gal. .34 - —
Mennequa, Colo. ... gal. .34 - —
Philadelphia district ... gal. .34 - —
Pittsburgh district ... gal. .34 - —
Sparrows Point, Md. ... gal. .34 - —
Syracuse, N. Y. ... gal. .34 - —
Terre Haute, Ind ... gal. .34 - —
Youngstown, Ohio ... gal. .34 - —
Benzene, petroleum, nitration or industrial, Houston, Tex., tanks. gal. .34 - .40
Benzene hexachloride, 25% and 99% gamma isomer (see Lindane).
Benzene hexachloride, tech., high gamma, bgs., c.l., t.l., consignment, dlvd. gamma-unit .0075 —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit .0085- —
Tech., low gamma, bgs., c.l., t.l., consignment, dlvd gamma-unit .0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit .0056- —
Benzidine hydrochloride, bbls., c.l., frt. alld., 100% basis lb. 1.19 - —
bbls., l.c.l., same basis ... lb. 1.21 - —
Benzidine sulfate, tech., bbls., frt. alld., 100% basis lb. 1.21 - —
Benzidine yellow, AAA, bbls., dlvd. lb. 2.20 - —
AAOT, bbls., dlvd. ... lb. 2.55 - —
Lightfast, bbls., dlvd. ... lb. 3.40 - —
Benzocaine, dms., 100-lbs., frt. alld. lb. 3.25 - —
Benzoic acid, tech., bbls., dms., c.l., t.l., frt., alld lb. .37 - —
bbls., dms., ton lots, same basis lb. .41 - —
bbls., dms., 1,000-lb lots, same basis lb. .43 - —
USP, bbls., dms., ton lots lb. .43 - —
bbls., dms., 1,000-lb lots lb. .50 - —

BENZOL

Benzol quotations, both coaltar and petroleum, may be found under Benzene.

Benzoin gum, Sumatra, cs. ... lb. .33 - —
Benzophenone, dms. ... lb. 1.40 - 1.65
Benzotriazole, tech., dms., 1,000-lb. lots, works lb. 2.25 - —
Benzotrichloride, cbys., 1,000-lbs. lots or more, frt. equald lb. .21 - —
cbys., smaller lots, frt. equald lb. .23 - —
Benzoyl chloride, cbys., dms., c.l., works, frt. equald lb. .22 - —
cbys., l.c.l., same basis ... lb .23 - —
tanktrucks, dlvd. Metropolitan area lb. .21 - —
Benzoyl peroxide, purif., fib. dms., 50 to 1,000-lb lots, works lb. .98 - 1.08
Benzyl acetate, f.f.c., cns., dms lb. .58 - .79
Benzyl alcohol, NF, dms. ... lb. .58 - .80
Tech., dms., dlvd. ... lb. .47½ - .65
Benzyl benzoate, USP, 40-lb. dms. lb. .62 - —
Benzyl chloride, tech., cbys., dms., c.l., works, frt. equald lb. .22½ - .25½
cbys., dms., l.c.l., same basis lb. .23½ - .25½
tanktrucks, dlvd. Metropolitan area lb. .21 - —

A 2½c. differential is quoted on benzyl chloride in 5-gal. cbys. in steel dms. prices are ½c. lower.

Benzyl cinnamate, cns. ... lb. 3.30 - 3.60
Benzyl dimethylamine, dms., works. lb. 2.25 - —
Benzyl formate, cns. ... lb. 1.85 - 2.10
Benzyl isoeugenol, cns ... lb. 9.25 - —
Benzyl propionate, bots. ... lb. 1.35 - 1.65
Benzyl salicylate, bots ... lb. 1.50 - 1.85
Benzylidine acetone, bots. ... lb. 1.75 - 1.80
Benzylidine chloride (see Benzal chloride).
Berberine bisulfate, cns ... lb. 56.50 - —
Berberine hydrochloride, bots ... lb. 56.50 - —
Bergamot oil, nat., NF, Italian, cns. lb. 11.00 - 12.00
Betagammapicoline (see b.g-Picoline).
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid).
Betaoxynaphthoic acid (see b-Oxynaphthoic acid).
Betamethylnaphthalene (see Methylnaphthalene).
Betanaphthol (see b-Naphthol).
Betanaphthylamine (see b-Naphthylamine).
Betaphenylethylamine (see b-Phenylethylamine).
BHC (see Benzene hexachloride, tech.).
Biotin, cryst., bots ... gram. 10.00 - —
Biphenyl (see Diphenyl).
Birchtar oil, crude, cns ... lb. 1.50 - 1.90
Rectified, cns. ... lb. 1.75 - 2.00
Bismuth chloride, jars ... lb. 5.11 - —
Bismuth hydroxide, dms ... lb. 4.60 - 4.65
Bismuth metal, bxs., ton lots ... lb. 2.25 - —
Bismuth nitrate, cryst., dms ... lb. 2.08 - 2.17
Bismuth oxide, anhyd., 100-lb. dm., f.o.b. works lb. 4.42 - —
Bismuth oxychloride, 25-lb. dm., f.o.b. works lb. 4.42 - —
Bismuth subcarbonate, USP, dms. lb. 3.20 - —
Bismuth subgallate, NF, 200-lb. dm., f.o.b. works lb. 3.15 - —
Bismuth subiodide, fib dms ... lb. 5.37 - —
Bismuth subnitrate, NF, 200-lb. dm., f.o.b. works lb. 2.65 - —
Bismuth subsalicylate, USP, 100-lb. dm., f.o.b. works lb. 3.50 - —
Bismuth-ammonium citrate, USP, powd., jars lb. 4.22 - —
Bisphenol-A, bgs., c.l., t.l., single shipt., 70,000-lbs. or more, frt. alld lb. .29½ - —
bgs., c.l., t.l., less than 70,000 lbs., same basis lb. .30 - —
bgs., l.c.l., same basis ... lb. .31 - —
Blackberry root bark, bls ... lb. .50 - .55

BLACK PIGMENTS

Black pigment quotations are listed individually. For example, prices on Black, acetylene, may be found in the A's under Acetylene black.

Blanc fixe, direct process, bgs., c.l., works ton. 145.00 - —
bgs., l.c.l., works ton. 155.00 - —
bgs., l.c.l., New York whse ton. 195.00 - —
Blood, dried, 16-16½% ammonia, bgs., New York unit-ton. 5.50 - —
Bloodroot, bls. ... lb. .90 - 1.00

BLUE PIGMENTS

Blue pigment quotations are listed individually. For example, prices on Blue, ultramarine, may be found in the U's under Ultramarine blue.

Blue dyes (see Dyes).
Blue vitriol (see Copper sulfate).
Bois de rose oil, Brazilian, dms lb. 2.20 - 2.85
Peruvian, dms. ... lb. 1.95 - 2.40
BON acid maroons, pure, bbls lb. 1.75 - —
Resinated, bbls. ... lb. 1.50 - —
Bone black, dms., l.c.l., frt. alld lb. .19½ - .26¼
Pacific coast bone black prices 2c. per lb. higher.
Bonemeal, steamed, works, E ton. 80.00 - —
Bone phosphate, defluorinated of lime (see Defluorinated phosphate).
Bone phosphate precip. (see Calcium phosphate, tribasic).
Borax, tech., anhyd., 99½%, bgs., c.l., works ton. 92.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 7.42 - —
bgs., smaller lots, same basis 100 lbs. 8.67 - 10.67
bulk, c.l., works ... ton. 83.00 - —
gran., decahydrate, 99½%, bgs., c.l., works ton. 50.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 5.32 - —
bgs., smaller lots, same basis, 100 lbs. 6.57 - 8.57
bulk, c.l., works ... ton. 43.50 - —
gran., pentahydrate, 99½%, bgs., c.l., works ton. 54.50 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 6.05 - —
bgs., smaller lots, same basis 100 lbs. 7.30 - 9.30
bulk, c.l., works ... ton. 58.00 - —
USP, powd., bgs., c.l., works, dlvd lb. .24 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 6.45 - —
bgs., smaller lots, same basis, 100 lbs. 7.70 - 9.70
Bordeaux powder, tribasic, bgs., c.l., works ton. 335.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 19.62 - —
bgs., smaller lots, same basis, 100 lbs. 20.87 - 22.87
cryst., 99.9%, bgs., c.l., works, ton. 163.50 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 11.05 - —
bgs., smaller lots, same basis, 100 lbs. 12.30 - 14.30
dms., c.l., works ... ton. 188.50 - —
dms., ton lots, ex whse., New York or Chicago, 100 lbs. 12.30 - —
bgs., smaller lots, same basis 100 lbs. 13.05 - —
gran., 99.9%, bgs., c.l., works, ton. 112.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 8.47 - —
bgs., smaller lots, same basis, ton. 174.25 - —
dms., c.l., works ... ton. 137.00 - —
dms., ton lots, ex whse, New York or Chicago 100 lbs. 9.72 - —
dms., smaller lots, same basis 100 lbs. 10.47 - —
bulk, c.l., works ... ton. 106.00 - —
powd., bgs., ton lots, ex whse., New York or Chicago, 100 lbs. 8.85 - —
bgs., smaller lots, same basis 100 lbs. 10.10 - 12.10
dms., smaller lots, same basis 100 lbs. 11.45 - —
USP boric acid $25 per ton higher in bags.
Borneol, cns. ... lb. 2.75 - —
Boron trichloride, CP, 1,800-lb. cyls., works lb. 1.25 - —
100-lb. cyls., works ... lb. 1.70 - —
Boron trifluoride, gas, cyls., t.l., works lb. .70 - —
cyls., l.t.l., works ... lb. .70 - —
Brimstone (see Sulfur).
Broenner's acid, bbls ... lb. 1.53 - —
Bromine, purif., cs., c.l., t.l., dlvd. E. of Rockies lb. .32 - —
cs., l.c.l., same basis ... lb. .34 - .39
ret. dms., c.l., t.l., dlvd. E. of Rockies lb. .31 - —
ret. dms., l.c.l., same basis lb. .31 - .34
tanks, same basis ... lb. .21½ - —
Bromochloromethane, dms., c.l., frt. equald lb. .48 - —
dms., l.c.l., same basis ... lb. .50 - —
tanks, same basis ... lb. .47 - —
Bromoform, pharmaceutical grade, 100-lb. cbys lb. 1.80 - 1.90
Bromstyrol, bots. ... lb. 5.35 - 5.70
Brucine, cns ... oz. Nominal.
Brucine sulfate, NF, cns. ... 1.45 - 1.75
Buchu leaves, bbls. ... lb. .70 - .75

BROWN PIGMENTS

Brown pigment quotations are listed individually. For example, prices on Brown, iron oxide, may be found in the I's under Iron oxide brown.

Butadiene, refd. cyls., c.l., refy lb. .21 - —
cyls., l.c.l., refy. ... lb. .22 - —
tanks, dlvd. ... lb. .14½ - —
Butene-1, tanks, works ... lb. .0625- —
Butene-2, tanks, works ... lb. .0570- —
n-Butyl acetate, ferment, dms., c.l., frt. alld lb. .17 - —
dms., l.c.l., same basis ... lb. .18½ - —
tanks, same basis ... lb. .14½ - —
Syn., dms., c.l., dlvd. E lb. .17 - —
dms., l.c.l., same basis ... lb. .18½ - —
tanks, same basis ... lb. .14½ - —
sec-Butyl acetate, syn., dms., c.l., dlvd. E lb. .14¾ - —
dms., l.c.l., same basis ... lb. .16¼ - —
tanks, same basis ... lb. .12¼ - —
n-Butyl acrylate, dms., c.l. or t.l., straight or mixed frt. alld. E lb. .42½ - —
dms., l.t.l., same basis ... lb. .43½ - —
tanks, same basis ... lb. .40 - —
Prices of n-Butyl acrylate are 1c. per lb. higher in Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
n-Butyl alcohol, ferment, dms., c.l., frt. alld. lb. .18 - —
dms., l.c.l., frt. alld ... lb. .19½ - —
tanks, frt. alld. ... lb. .15½ - —
n-Butyl alcohol, syn., dms., c.l., dlvd lb. .18 - —
dms., l.c.l., frt. alld ... lb. .19½ - —
tanks, dlvd. ... lb. .15½ - —
Sec-synthetic, dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd. ... lb. .16½ - —
tanks, dlvd. ... lb. .12½ - —
Tert-synthetic, dms., c.l., frt. alld. dlvd. E lb. .16 - —
dms., l.c.l., same basis ... lb. .17½ - —
tanks, same basis ... lb. .13½ - —
Butyl aldehyde (see Butyraldehyde).
Butyl chloride, dms., c.l., works lb. .37½ - —
dms., l.c.l., works ... lb. .38¼ - —
n-Butyl ether, dms., c.l., works lb. .35¼ - —
dms., l.c.l., works ... lb. .36 - —
tanks, works ... lb. .33¼ - —
Butyl lactate, dms., c.l., frt. alld. E. Rockies lb. .42½ - —
dms., l.c.l., same basis ... lb. .43½ - —
tanks, same basis ... lb. .40 - —
Butyl laurate, dms., works ... lb. .37½ - —
Butyl methacrylate, dms., c.l., t.l., works lb. .55 - —
dms., l.c.l., works ... lb. .55½ - —
Butyl oleate, refd., dms., l.c.l., works lb. .32 - —
Butyl phenylacetate, dms. lb. 4.50 - 4.60
Butyl phthalate (see Dibutyl phthalate).
Butyl stearate, dms., c.l., frt. alld. E. of Mississippi lb. .27¼ - —
dms., l.c.l., same basis ... lb. .28¼ - —
Butylamine (see Mono-, Di- and Tributylamine).
tert-Butylamine, dms., c.l., t.l., f.o.b. works lb. .47 - —
dms., l.c.l., same basis ... lb. .47½ - —
tc., t.t., same basis ... lb. .45 - —
Butylated hydroxyanisole, food grade, dms., dlvd. ... lb. 4.75 - —
6-tert-Butyl-m-cresol (see Mono-tert-butyl-m-cresol).
Butylated hydroxytoluene (see 2,6-Di-tert-butyl-p-cresol).
1,3-Butylene glycol, dms., c.l., t.l., dlvd lb. .20½ - —
dms., l.c.l., l.t.l., f.o.b. works lb. .22 - —
tanks, dlvd. ... lb. .18 - —
p-tert-Butylphenol, bgs., c.l., dlvd. lb. .27½ - —
bgs., l.c.l., works ... lb. .28½ - —
Butyraldehyde, dms., c.l., dlvd lb. .22 - —
dms., l.c.l., dlvd. ... lb. .23½ - —
tanks, dlvd. ... lb. .19½ - —
Butyric acid, 99%, dms., c.l., frt. equald lb. .34 - —
dms., l.c.l., same basis ... lb. .34½ - —
tanks, same basis ... lb. .32½ - —
Butyric ether (see Ethyl butyrate).
Butyrolactone, cms., c.l., t.l., works. lb. .40 - —
dms., l.c.l., same basis ... lb. .43 - —

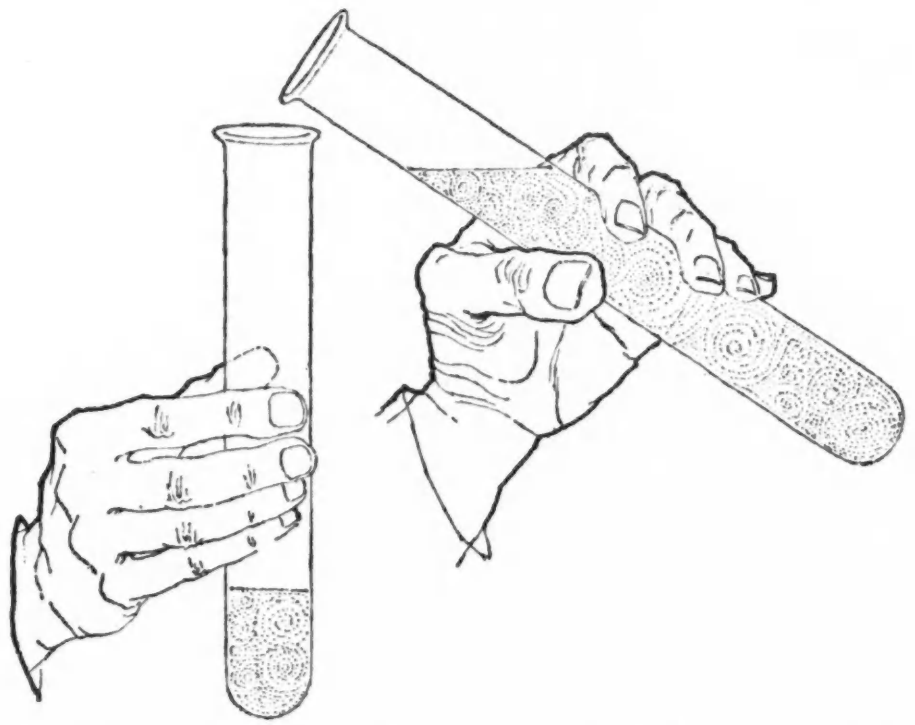
C

Cacao butter (see Cocoa butter).
Cadmium CP red dark shade, bbls., frt. alld. E. of Rockies lb. 5.55 - —
Light shade, bbls., same basis lb. 4.65 - —
medium shade, bbls., same basis, lb. 5.30 - —
Medium light shade, bbls., same basis lb. 4.90 - —
Orange-red shade, bbls., same basis lb. 4.50 - —
Yellow, all shades, bbls., frt. alld. E. of Rockies lb. 2.85 - —
Cadmium iodide, 25-lb. fib. dms lb. 6.75 - 7.00
Cadmium metal, ingots or sticks, ton lots, cs., dlvd ... lb. 1.30 - —
Cadmium-mercury lithopone orange, deep shade, bbls., frt. alld E. of Rockies lb. 1.65 - —
Cadmium-mercury lithopone red, dark shade, bbls., same basis lb. 1.95 - —
Red, light shade, bbls., same basis, lb. 1.72 - —
Red, medium shade, bbls., same basis, lb. 1.87 - —
Red, medium light shade, bbls., same basis lb. 1.80 - —
Red, maroon shade, bbls., same basis lb. 2.03 - —
Cadmium-selenide lithopone maroon, bbls., frt. alld E. of Rockies lb. 2.76 - —
Orange, bbls., same basis ... lb. 1.58 - —
Cadmium-selenide lithopone red, orange-red shade, bbls., same basis lb. 1.72 - —
Red, dark shade, bbls., same basis, lb. 2.56 - —
Red, light shade, bbls., same basis, lb. 1.88 - —
Red, medium shade, bbls., same basis lb. 2.00 - —
Red, medium-light shade, bbls., same basis lb. 2.23 - —

Calmium-selenide lithopone, yellow, all shades, bbls., frt. alld. E. of Rockies lb. 1.19 - —
Caffeine, NF, citrated, dms., 100-lb. lots or more lb. 2.70 - —
USP, nat., cryst., anhyd., dms., 100-lb. lots or more lb. 2.10 - —
cryst., hydrous, dms., 100-lb. lots or more lb. 1.96 - —
USP, syn., anhyd., dms., 100-lb. lots or more lb. 2.10 - —
cryst., hydrous, dms., 100-lb. lots or more lb. 1.96 - —
Cajuput oil, native, cns. ..... lb. 1.75 - 2.00
Redist., USP, cns. ..... lb. 1.90 - 2.10
Calamine, USP, dms. ..... lb. .34 - —
Calamus oil, bots. ..... lb. 12.00 -20.00
Calciferol, cryst., 10-kilo or more lots, works gram. .54 - —
1-10 kilo lots ..... gram. .55 - —
Calciferol, in edible oil (see Viosterol).
Calcium p-aminosalicylate trihydrate, fib. dms., 100 lbs. or more, frt. adjusted lb. 3.10 - —
Calcium arsenate, dealers, bgs., c.l., frt. alld. lb. .09 - .09¼
bgs., l.c.l., same basis lb. .10 - .10½
Calcium bromide, NF, jars, 100 lbs. or more lb. .97 - —
Calcium carbide, standard generator size, 600-lb. dms., c.l., dlvd. ton 149.00 - —
Calcium carbonate, nat., dry-grd., air floated, 325 mesh, bgs., c.l., works ton 10.50 - —
chalk, whiting, 325 mesh, bgs., c.l., works ton 32.00 -34.00
water-grd., ½ to 10 microns, bgs., c.l., works ton 30.00 - —
10 to 20 microns, bgs., c.l., works ton 17.00 -18.00
Calcium carbonate, precip., dense, bgs., c.l., works ton 30.00 -38.50
bgs., l.c.l., works ton 45.00 -53.50
medium, bgs., c.l., works ton 38.00 - —
bgs., l.c.l., works ton 48.00 -53.00
surface treated, bgs., c.l., works. ton 42.00 -44.00
bgs., l.c.l., works ton 57.00 -59.00
ultrafine, bgs., c.l., works ton 117.50 -167.50
bgs., l.c.l., works ton 137.50 -187.50
Calcium chloride, conc., flake or pellet, 94-97%, paper bgs., c.l., works, frt. equald. ton 39.30 - —
Flake, 77-80%, paper bgs., c.l., works, frt. equald ton 32.00 - —
Liquor, 40%, tanks, frt. equald. ton 12.50 - —
Powd., 77% min., paper bgs., c.l., works, frt. equald ton 37.00 - —
Purif., gran., dms. ..... lb. .27 - —
Solid, 73-75%, dms., c.l., frt. equald ton 29.50 - —
dms., l.c.l., works, frt. equald. ton 36.00 -73.00
USP, gran., dms. ..... lb. .32 - —
Calcium chromate, bgs., dlvd lb. .37 - —
Calcium cyanide, dms., c.l., dlvd. E. of Rockies lb. .20 - —
dms., l.c.l., same basis lb. .24 - .55
Calcium cyclamate, 100-lb. dms lb. 1.95 - —
Calcium gluconate, USP, AA grade, 100-lb. dm., ton lb. .73½ - —
USP, powd., 100-lb. dm., ton lb. .66½ - —
Calcium hydride, iump, dms., works. lb. 2.20 - 3.00
Calcium hypochlorite, high test, gran., 45-lb. cs., dlvd. E. of Rockies cs. 23.85 -25.60
100-lb. dms., same basis dm. 33.30 -36.55
Calcium hypophosphite, dms., 1,000-lb. lots lb. 1.28 - —
Calcium iodide, jars ..... lb. 4.52 - —
Calcium lactate, NF, dms., f.o.b. works lb. .43 - .46
Calcium mandelate, USP, 150-lb. dm., works lb. 3.25 - —
Calcium naphthenate, liq., 4% Ca., dms., frt. equald lb. .30 - —
Calcium pantothenate, USP, jars, 1 kilo or more kilo. 35.00 - —
Calcium para-aminosalicylate (see Calcium p-aminosalicylate).
Calcium phenosulfonate, dms. ... lb. 1.24 - 1.25
Calcium phosphate, dibasic, USP, bgs., c.l., frt. equald 100 lbs. 16.00 - —
Dibasic, feed grade, 18½% P, bgs., c.l., t.l., frt. equald ton 86.00 - —
bgs., c.l., t.l., f.o.b. Texas City works ton 80.50 - —
bgs., l.c.l., frt. equald ton 96.00 - —
Dibasic, feed grade, 21% P, bgs., c.l., t.l., frt. equald ton 97.65 - —
bgs., l.c.l., frt. equald ton 107.65 - —
Prices of calcium phosphate dibasic in bulk $3 per ton less than bgs., c.l., prices.
Calcium phosphate, monobasic, bgs., 10,000-lb. lots, frt. equald. 100 lbs. 7.45 - —
bgs., smaller lots, same basis. 100 lbs. 7.95 - —
Tribasic, NF, precip., bgs., c.l., works, frt. equald 100 lbs. 9.25 - —
bgs., l.c.l., frt. equald. 100 lbs. 10.00 - —
Calcium phytate, bgs., 50 lbs. or more, f.o.b. warehouse N. Y. lb. .39 - —
Calcium resinate, precip., dms., ton lots, frt. alld., works lb. .40¼ - —
Calcium silicate, hydrated, bgs., c.l., works lb. .06 - —
bgs., l.c.l., works ..... lb. .06½ - —
Calcium silicate, paint grade (see Wollastonite).
Calcium stearate, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Calcium sulfate (see Gypsum).
Calomel, NF, mild, powd., dms., 100-lbs., f.o.b. works lb. 5.42 - —
NF, mild, precip., dms., 100-lbs., f.o.b. works lb. 5.67 - —
Camphene, 46° m.p., dms. incl., c.l., works lb. .15 - —
dms. incl., l.c.l., same basis lb. .16½ - —
tanks, same basis ..... lb. .12½ - —
Camphene, chlorinated, 67-69% (see Toxaphene).
Camphor, monobromated, NF, dms., kgs. lb. 3.63 - 3.70
Nat., USP, powd., cs., 100-lb. lots. lb. .60 - .63
tablets, 1-oz. cs. ..... lb. .85 - .90
Nat., USP, gran., bbls., 2,000-lb. lots lb. .59 - —
Syn., tech., 1 bbl. or more ... lb. .48 - —
Syn., USP, gran., powd., bbls., 1,000-lb. lots lb. .60 - —
bbls., smaller lots ..... lb. .61 - —
tablets, ctns., 1,000-lb. lots. lb. .85 - —
ctns., 500-lb. lots ..... lb. .86 - —
ctns., smaller lots ..... lb. .87 - —
Camphor oil, sassafrassy, dms. .. lb. .35 - .55
White, dms. ..... lb. .26 - .50
Cananga oil, native, cns. ..... lb. 5.00 - 6.50
Rectified, cns. ..... lb. 7.25 -10.00
Candelilla wax, crude, bgs. ..... lb. .68 - .70
Refd., pure, bgs. ..... lb. .70 - .71
Powdered Candelilla wax 20 to 100 mesh, 8c. higher.
Cantharides, Chinese, cs. ..... lb. 1.00 - —
powd., bgs. ..... lb. 1.15 - —
Russian, bgs. ..... lb. 2.00 - 2.15
powd., bgs. ..... lb. 2.15 - 2.30
Capric acid, dms. ..... lb. .35½ - .38
tanks ..... lb. .33 - .34½
Caprolactum monomer, bgs., c.l., t.l., f.o.b. works lb. .53 - —
bgs., l.c.l., l.t.l., same basis lb. .57 - —
tanks, same basis ..... lb. .49 - —
Capryl alcohol, 85% dms., c.l., t.l., works lb. .19 - —
dms., l.t.l., same basis ..... lb. .19½ - —
tanks, frt. equald. ..... lb. .16½ - —
Sec., 92-99%, dms., c.l., f.o.b. works lb. .22 - —
dms., l.c.l., f.o.b. works ... lb. .23 - —
tanks, f.o.b. works ..... lb. .19½ - —
Caprylic acid, dms. ..... lb. .35½ - .38
tanks ..... lb. .33 - —
Capsicum (see Pepper red).
Capsicum oil (see Capsicum oleoresin).
Capsicum oleoresin, NF, from dom. pepper, dms lb. 4.00 - —
NF, from African pepper, dms. lb. 4.50 - —
Caraway oil, NF, dms. ..... lb. 3.15 - 3.40
Caraway seed, Danish, bgs. ..... lb. .16 - —
Dutch, bgs. ..... lb. .17½ - —
Polish, bgs. ..... lb. .17¼ - —
Carbazole, 97%, bbls, ton lots, works lb. 1.05 - —
Carbon black, channel, rubber beads, bulk, c.l., works lb. .08 - —
bgs., c.l., works ..... lb. .08½ - —
bgs., l.c.l., works ..... lb. .10¼ - —
Furnace, fast extruding, bgs., c.l., works lb. .06¾ - —
ctns., l.c.l., whse. ..... lb. .13½ - —
high abrasion, bulk, c.l., works. lb. .07¼ - —
bgs., c.l., works ..... lb. .07¾ - —
bgs., l.c.l., dlvd. or whse lb. .14½ - —
high modulus, bgs., c.l., works. lb. .06¼ - —
ctns., l.c.l., whse. ..... lb. .13 - —
semi-reinforcing, bgs., c.l., works lb. .05¾ - —
bgs., ctns., l.c.l., whse. ... lb. .12½ - —

Cadmium-Selenide Lithopone Yellow—Carotene

Carbon black, pigment, high color beads, ctns., c.l., works. lb. .72 - —
ctns., l.c.l., dlvd. or whse lb. .79 - —
medium color, uncompressed, bgs., c.l., works lb. .14 - —
bgs., l.c.l., dlvd. or whse lb. .22½ - —
Carbon dioxide, indust., wholesale, bulk, 30,000-2,999,999 lbs., dlvd. Metropolitan areas, E ton 60.00 -115.00
bulk, 3,000,000 lbs. or more, dlvd. Metropolitan areas, E ton 55.00 - —
Solid, bulk, wholesale, works ton 85.00 - —
Carbon disulfide, 55-gal. dms., c.l., works, frt. equald to competitive points lb. .071 - —
55-gal. dms., l.c.l., same basis lb. .086 - .091
5-gal. dms., 30 dms. to c.l., same basis lb. .131 - —
5-gal. dms., less than 30 dms., same basis lb. .161 - —
tanks, dlvd. ..... lb. .0545- —
Carbon tetrachloride, CP, consumers, dms., c.l., frt. alld. lb. .12¾ - —
dms., l.c.l., frt. alld. ..... lb. .15¼ - —
Tech., consumers, dms., c.l., t.l., frt. alld lb. .11¾ - —
dms., l.c.l., l.t.l., frt. alld lb. .14¼ - —
tanks, frt. alld ..... lb. .10¾ - .11¼
Carboxymethyl cellulose (see CMC).
Carbromal, NF, dms., 100-lb lots, works lb. 4.00 - 4.25
dms., smaller lots, works ... lb. 4.10 - 4.75
Cardamom oil, NF, bots. ..... lb. 39.00 -42.00
Cardamom seed, bleached "A" .. lb. 3.20 - —
Bleached "B" ..... lb. 3.10 - —
Decorticated Alleppey, cs. .... lb. 2.30 - —
Guatemala, cs. ..... lb. 3.15 - —
Green, Alleppey, bgs. ..... lb. 2.35 - —
Ceylon, bgs. ..... lb. 2.15 - —
Carmine No. 40, NF, bulk, 100-lb. lots or more, dlvd. .... lb. 16.80 - —
bulk, smaller lots, dlvd. .... lb. 16.90 -17.30
Carnauba wax, chalky, bgs., ton lots lb. .70 Nom.
North Country, No. 2, crude, bgs., ton lots lb. .80 Nom.
refd., pure, ton lots ..... lb. .86 - .87
North Country, No. 3, Ceara, ton lots lb. .69 - .70
Ceara, refd., pure, bgs., ton lots lb. .77 - .78
North country, No. 3, Parnahyba, ton lots lb. .71 - .72
Parnahyba, refd., pure, bgs., ton lots lb. .79 - .80
North Country, No. 1, Ceara, yellow, bgs., ton lots lb. 1.05 - 1.07
Parnahyba, yellow, bgs., ton lots lb. 1.08 - 1.10
Powdered carnauba wax, 20 to 100 mesh 8c. per lb. higher.
Carotene, tech., 1,350,000 A units per gram tins, 5-10 kilo lots, dlvd gram. .20½ - —
in carrot oil, 5,000,000 to 8,000,000 A units per lb., dms., works million units. .12 - —
USP, microcrystalline in oil, 400,000 A units per gram., dms., dlvd million units. .144 - —



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b-Carotene, in vegetable oil, sen..i-solid suspension, 400,000 A units per gram, cns kilo. 57.60 - —
Liquid in vegetable oil, 500,000 A units per gram, cns. kilo. 72.00 - —
Pure, cryst., 1,600,000 to 1,670,000 A units per gram, cns. kilo. 240.00 - —
Carvol, bots. lb. 5.00 - 5.40
Cascara sagrada bark, bulk lb. .34 - .36
Casein, dom., edible, acid precip., 30 mesh, bgs., 10,000-lb. lots or more, works lb. .56 - —
edible, acid, precip., 80 mesh, bgs., 10,000-lb. lots or more, works lb. .64 - —
Imp., inedible, acid-precip., gro., Argentine, bgs., c.l., ex-deck, Eastern seaports lb. .49¾ - .20
New Zealand, bgs., c.l., same basis lb. .24 - —
Cashewnut shell, liquid, treated, dms., c.l., Newark, N. J. lb. .22 - —
dms., ton lots, same basis lb. .23 - —
dms., ton lots, same basis lb. .25 - —
Cassella acid, dms., frt. alld., 100% basis lb. 1.44 - 1.75
Cassia oil, redist., USP, cns. lb. 8.50 -11.00
Cassia, Padang, "A," bls. lb. .30 - —
"B," bls. lb. .29 - —
"C," bls. lb. .28 - —
Korintje "A," bls. lb. .34 - —
"B," bls. lb. .30 - —
"C," bls. lb. .30 - —
Castor oil, dom., blown, dms., c.l. lb. .2550- —
dms., l.c.l. lb. .2650- —
dehydrated, bodied, dms., c.l. lb. .2700- —
dms., l.c.l. lb. .2850- —
tanks lb. .2500- —
dehydrated, unbodied, dms., c.l. lb. .2500- —
dms., l.c.l. lb. .2660- —
tanks lb. .2360- —
hydrogenated, bgs., c.l. lb. .2450- —
bgs., ton lots lb. .2850- —
bgs., l.c.l., dlvd. lb. .3050- —
No. 1, AA, dms., c.l. lb. .2150- —
dms., l.c.l. lb. .2300- —
tanks lb. .2000- —
No. 3, tech., dms., c.l. lb. .2075- —
Refd., deod., dms., c.l. lb. .2650- —
dms., l.c.l. lb. .2750- —
Refd., deod., dms., c.l. lb. .2750- —
dms., l.c.l. lb. .2750- —
USP, dms., c.l. lb. .2350- —
dms., l.c.l. lb. .2450- —
tanks lb. .2150- —
Imported, No. 1, Braz., tanks lb. .17¼- —
Sulfonated, 50% dms., works lb. .15 - .15½
75%, dms., works lb. .19 - .19½
Castor oil acids, dehydrated, dms. lb. .44¼- .46¼
Split, dms. lb. .37¼- .38¼
Casier pomace, bgs., c.l., works ton. 35.00 - —
Castoreum nat., cns. lb. 5.25 - —
Syn., cns. lb. 9.00 - —
Catechol, CP, cryst., fib., dms., works lb. 2.17½- —
Resub., dms., works lb. 4.29½- —
Catnip leaves, Southern, bls. lb. Nominal.
Caustic potash (see Potash caustic).
Caustic soda (see Soda, caustic).
Cedarleaf oil, USP XIII cns., dms. lb. 2.50 - 3.10
Cedarwood oil, cns., dms. lb. .65 - .70
Celery seed, French, bgs. lb. .33 - —
Indian, bgs. lb. .19 - —
Cellulose acetate, flake, powd., bgs., t.l., dlvd. E lb. .36 - .51
Cellulose acetate-butyrate, powd., 17% butyryl content, bgs., dlvd. E lb. .545 - .555
27% butyryl content, bgs., dlvd. E lb. .595 - .605
38% butyryl content, bgs., dlvd. E lb. .545 - .555
38% butyryl content, half-second, bgs., dlvd. E lb. .545 - .555
50% butyryl content, bgs., dlvd. E lb. .585 - .595
Cellulose gum, methyl (see Methyl Cellulose).
Cellulose gum, pure, high vis., bgs., 23,000-lb. lots or more works, frt. alld lb. .57 - —
bgs., smaller lots, same basis lb. .59 - —
Cerium chloride (see Rare Earth Chloride).
Cerium chloride, 45%, dms., dlvd lb. .25 - —
Cerium hydrate, 74% CeO, fib. dms., 100-lb. lots or more lb. 1.40 - —
77% CeO, fib. dms., 100-lb. lots or more lb. 1.74 - —
Cerium oxalate (see Rare earth oxalate).
Cerium oxide, optical grade, bgs., 50-lb. lots or more, dlvd. lb. 1.85 - 1.90
bgs., smaller lots, dlvd. lb. 2.15 - —
Cetyl alcohol, NF, fib. cns., c.l., t.l., dlvd. E lb. .41½- —
fib. cns., l.c.l., same basis lb. .45½- —
tanks, same basis lb. .39 - —
Extra, cns., c.l., t.l., dlvd. E lb. .45½- —
fib. cns., l.c.l., same basis lb. .50½- —
tanks, same basis lb. .46 - —
Chalk (see Calcium carbonate).
Chamomile flowers, Hungarian, bls lb. 1.10 - —
Roman, cs. lb. 1.50 - 1.75
Chamomile oil, blue Hungarian, bots lb. 350.00 - —
Charcoal, activated, NF, fib. dms., c.l., works lb. .25 - .32
fib. dms., 5-ton lots, works lb. .29½- .32½
fib. dms., smaller lots, works lb. .27 - .50
Charcoal, black (see Charcoal, activated).
Charcoal, bone (see Bone black).
Charcoal, hardwood, lump, bulk, c.l., f.o.b. plant ton. 55.00 - —
briquets, bulk, c.l., f.o.b. plant ton. 78.00 -80.00
5-lb. paper bgs., c.l., same basis ton. 106.00 - —
25-lb. paper bgs., c.l., f.o.b. plant ton. 87.00 - —
40-lb. paper bgs. c.l., same basis ton. 84.00 - —
Chenopodium oil, NF, cns. lb. 4.15 - 5.00
Chicago acid, paste, bbls., frt. alld. lb. 3.21 - —
Chinawood oil (see Tung oil).
Chloral, tech., 94% min., dms., c.l., works lb. .23 - —
dms., l.c.l., works lb. .24 - —
tanks, multiple units, 5 cars, dms., l.c.l., works lb. .21 - —

Chloral hydrate, USP, jars, 1,000-lb. lots lb. 1.00 - —
jars, 500-lb. lots lb. 1.03 - —
jars, 100-lb. lots or less lb. 1.05 - —
Chlordan, agricultural, dms., c.l., frt. alld lb. .65 - —
dms., l.c.l., 5,000-10,000-lb. lots, frt. alld lb. .66 - —
Clarified, dms., c.l., frt. alld lb. .69 - —
dms., l.c.l., 5,000-10,000-lb. lots, frt. alld lb. .70 - —
Chlorinated paraffin, 42%, dms., c.l., frt. alld lb. .16¾ - —
dms., l.c.l., 10 dms. or more, same basis lb. .17¼ - —
70%, dms., c.l., same basis lb. .18½ - —
dms., l.c.l., 10 dms. or more, same basis lb. .19½ - —
Chlorinated rubber, 5, 10, 20 cps., ctns., c.l., works lb. .60 - —
ctns., l.c.l., works lb. .61 - —
125, 1,000 cps., ctns., c.l., works. lb. .70 - —
ctns., l.c.l., works lb. .71 - —
Chlorine, liq., cyls., c.l., works, frt. equald lb. .11 - —
cyls., l.c.l., Metropolitan area lb. .12½- .13¾
tanks, single units, works, frt. equald 100 lbs. 3.25 - —
tanks, multiple units, 5 cars, works, frt. equald 100 lbs. 4.15 - —
tanks, multiple units, 4 cars, same basis 100 lbs. 4.35 - —
tanks, multiple units, 2 cars, same basis 100 lbs. 5.35 - 5.85
tanks, multiple units, 1 car, same basis⅝ 100 lbs. 6.25 - 7.25
Chloroacetic acid, mono, flake, 99%, purif., dms., c.l lb. .23½- .25½
dms., l.c.l. lb. .24½- —
tech., flake, 96-97%, dms., c.l., dms., l.c.l., frt. equald lb. .20 - —
frt. equald lb. .19 - —
2-Chloro-4-aminotoluene, tech., liq., dms., frt. alld lb. 1.03 - —
4-Chloro-2-aminotoluene, fused, bbls. lb. 1.38 - —
6-Chloro-2-aminotoluene, tech., liq., dms., frt. alld lb. .66 - —
m-Chloroaniline, dms., c.l., frt. alld. lb. .75 - —
dms., l.c.l., same basis lb. .77 - —
tanks, same basis lb. .73 - —
o-Chloroaniline, dms., c.l., frt. alld. lb. .52 - —
dms., l.c.l., same basis lb. .54 - —
tanks, same basis lb. .50 - —
p-Chloroaniline, dms., c.l., frt. alld. lb. .77 - —
dms., l.c.l., same basis lb. .79 - —
o-Chlorobenzaldehyde, dms., t.l., works lb. 1.05 - —
dms., l.c.l., same basis lb. 1.20 - —
p-Chlorobenzaldehyde, dms., l.c.l., works lb. 1.95 - —
o-Chlorobenzoic acid, fib. dms., t.l., works lb. 1.10 - —
fib. dms., smaller lots, works lb. 1.25 - —
p-Chlorobenzoic acid, fib. dms., 2,000-lbs. or more, works. lb. 2.25 - —
fib. dms., less than 2,000-lbs., same basis lb. 2.30 - —
Chloroform, tech., dms., c.l., dlvd. E lb. .18 - —
dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .17 - —
USP, dms., c.l., dlvd. lb. .27 - —
dms., l.c.l., dlvd. lb. .30 - —
tanks, minimum 4,000 gals. dlvd. lb. .25 - —
2-Chloro-4-nitroaniline, paste, dlvd. E., 100% basis lb. .81 - —
Powd., dlvd. E., 100% basis lb. .85½- —
4-Chloro-2-nitroaniline, powd., dlvd. E lb. .86 - —
4-Chloro-2-nitrophenol, tech., paste, dms., frt. alld lb. .75 - —
4-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld lb. .99 - —
6-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld lb. .17 - —
o-Chlorophenol, dms., c.l., frt. equald lb. .37 - —
dms., l.c.l., same basis lb. .38 - —
p-Chlorophenol, dms., c.l., frt. equald lb. .37 - —
dms., l.c.l., same basis lb. .38 - —
Chloropicrin, coml., cyls., 120 lbs., frt. alld lb. 1.07 - —
cyls., 100 lbs., same basis lb. 1.08 - —
cyls., 50 lbs., same basis lb. 1.14 - —
Chlorosulfonic acid, dms., c.l., frt. equald lb. .0465- —
dms., l.c.l., frt. equald lb. .0515- —
tanks, frt. equald lb. .0415- —
Chlorosulfonic acid, in stainless steel dms.½c. per lb. higher
o-Chlorotoluene, tech., dms., t.l., works lb. .37 - —
dms., l.c.l., t.l.l., same basis lb. .38 - —
Choline bitartrate, fib. dms., frt. adjusted kilo 2.75 - 3.00
Choline chloride, fib. dms., frt. adjusted kilo 2.75 - 3.00
Choline dihydrogen citrate, fib. dms., frt. adjusted kilo. 2.75 - 3.00
Chrome green, CP, dark, light, medium blue cente.. 1-15%, bbls., dlvd. E. of Rockies. lb. .43 - —
blue content, 16-30%, bbls., same basis lb. .44 - —
blue content, 41-45%, bbls., same basis lb. .44 - —
blue content, 45-49%, bbls., same basis lb. .45 - —
Reduced color 25%, bbls., same basis lb. .20 - —
Chrome green prices 1c. higher W. of Rockies.
Chrome orange, CP, bbls., dlvd. E of Rockies lb. .35 - —
Chrome orange prices 1c. higher W. of Rockies.
Chrome yellow, CP, bbls., dlvd. E of Rockies lb. .35 - —
Chrome yellow price 1c. higher W. of Rockies.
Chromic acid, 99¾%, dms., c.l., works, frt. equald lb. .29½- —
dms., l.c.l., dlvd. N. Y. Metropolitan area lb. .30 - .31
Chromic acid, NF (see Chromium trioxide).
Chromium acetate, soln., 7½%, dms., 500-2,000-lb. lots, works. lb. .10 - —
Chromium fluoride, bbls., works lb. .51 - .52
Chromium oxide, hydrated, bbls., fib. dms., c.l., frt. alld. lb. 1.20 - —
Pure, bgs., c.l., frt. alld lb. .44½- —
bgs., l.c.l., same basis lb. .45¼- —

Chromium trioxide, NF, bots lb. 1.15 - —
Cinchona bark, NF, red, broken, bgs lb. .25 - —
NF, yellow, broken, bgs lb. .35 - .40
Cinnamic acid, refd., bots lb. 2.50 - 3.50
Cinnamic alcohol, bots lb. 1.75 - 2.20
Cinnamic aldehyde, dms lb. .92 - 1.25
Cinnamon, Ceylon, No. 2, bgs. lb. .62 - —
Ceylon, No. "0000," bgs lb. .78 - —
Cinnamon bark oil, bots lb. 36.00 -70.00
Cinnamon leaf oil, crude, dms lb. 1.60 - 2.00
USP, (Cassia), cns., dms lb. 8.50 -13.50
Citral, CP, bots lb. 3.75 - 4.25
Extra, bots. lb. 4.50 - 6.10
Citric acid, USP, anhyd., fine gran., bgs., dms., c.l lb. .29½- .30
bgs., dms., 10,000-lb. lots, 1 shipt lb. .30 - .30½
bgs., dms., smaller lots lb. .30½- .31
USP, hydrous, fine gran., bgs., dms., c.l lb. .27½- .28
bgs., dms., 10,000-lb. lots, 1 shipt lb. .28 - .28½
bgs., dms., smaller lots lb. .29 - .29½
Powdered citric acid ½c. per lb. higher.
Citronella oil, Ceylon, dms lb. 1.00 - 1.25
Java-type, dms lb. .85 - 1.25
Citronellal, bots., dms lb. 1.60 - 2.10
Citronellol, bots., dms lb. 2.30 - 3.70
Civet, artif., bots lb. 13.75 -15.00
Nat., bots. oz. 8.50 -15.00
Clay, ball., dom., airfloated, bgs., c.l., Tenn ton. 17.50 -21.50
crushed, shed moisture, bulk, c.l., Tenn ton. 8.00 -11.00
imp., airfloated, bgs., c.l., Atl. port net-ton. 42.00 -45.75
lump, bulk, Atl. port net-ton. 29.50 -35.75
Clay, China, dom., dry-grd., airfloated, 99%, 325 mesh, Georgia, bgs., c.l., works. ton. 10.00 -12.00
Georgia, bgs., l.c.l., works. ton. 15.50 - —
dom., airfloated, 99% 300 mesh bgs., c.l., Georgia, works. ton. 13.50 -14.50
bgs., l.c.l., ex-whse ton. 35.00 -36.00
imp., white, lump, bulk, c.l. ex-dock, Philadelphia, Portland, Me long-ton. 20.00 -35.00
white, powd., bgs., c.l., ex dock. net-ton. 50.00 - —
bgs., l.c.l., ex whse net-ton. 60.00 -70.00
Cleaners naphtha, petroleum, 105 F Flash, tankcars, New Jersey and New York gal. 18 - —
Group 3 gal. .12875- —
Houston, Texas gal. .145 - —
140 F Flash, tankcars, New Jersey or New York gal. .205 - —
Group 3 gal. .154 - —
Houston, Texas gal. .17 - —
Cleve's acid, tech., mixed, solid, dms., frt. alld lb. 1.05 - —
1.6, tech., solid, dms., frt. alld lb. .77 - —
1.7, tech., dms., frt. alld lb. 2.20 - —
Cloves, Madagascar, bgs lb. .40½- —
Zanzibar, bgs. lb. .42½- —
Clove bud oil, USP, dms lb. 2.70 - 3.60
Clove leaf oil, crude, dms lb. 1.35 - 1.80
CMC, crude, 96.4% low or medium vis., bgs. or fib. dms., 23,000 lbs., dlvd. E., 100% basis lb. .41½- —
96.4% low, or medium vis., bgs. or fib. dms., less than 23,000 lbs., dlvd. E., 100% basis lb. .43½- —
65%, low or medium vis., bgs., or fib. dms., c.l., dlvd. E., 100% basis lb. .41½- —
bgs. or fib. dms., l.c.l., dlvd. E., 100% basis lb. .43½- —
CMC, purif., high vis. (see Cellulose gum).
CMC, standard, low or medium vis., bgs., 23,000 lbs., works, frt. alld lb. .57 - —
bgs., smaller lots, same basis. lb. .59 - —
CMC prices W. of the Rockies are 2c. per lb. lower and are on a works basis.
Coaltar, crude, resale for soln., tanks, works gal. .17 - —
Refd., resale, indust., dms., c.l., ex whse gal. .35 - —
dms., l.c.l., ex whse gal. .39 - —
tanks, works gal. .20½- —
Coaltar pitch, aluminum, bulk, works. ton. 44.00 - —
Carbon and indust., bulk, works. ton. 44.00 - —
Core, bulk, works ton. 40.50 - —
Fiber, bulk, works ton. 48.00 - —
Roofing, 140-155 F., Federal Specification RP-381 Type I, tanks, works ton. 41.00 - —
Cobalt acetate, 23.7% Co., dms., dlvd lb. 1.04 - —
Cobalt blue, genuine, 250 lb. bbls., dlvd. E. of Rockies lb. 4.90 - —
Cobalt blue prices 1c. higher W. of Rockies.
Cobalt blue, imitation (see Ultramarine blue).
Cobalt carbonate, 48% Co., powd., bgs., dlvd lb. 1.45 - —
Cobalt chloride, 24.2% Co., dms., dlvd lb. .99 - —
Cobalt hydrate, 60-61% Co., dms., dlvd lb. 2.05 - —
Cobalt linoleate, fused 8½% Co., dms lb. .71½- —
Liq., 6% Co., dms lb. .57½- —
Cobalt metal, 99%, dms., f.o.b. carrier lb. 1.50 - —
Cobalt naphthenate, liq., 6% Co., dms., dlvd lb. .48¾- —
Cobalt nitrate, 20.1% Co., bbls., dlvd. lb. .80 - —
Cobalt oxide, black, ceramic grade, 72½-73½% Co., kgs., dlvd. E. of Mississippi R. lb. 1.15 - —
70-71% Co., kgs., same basis lb. 1.12 - —
Cobalt oxide prices W. of Mississippi R. 3c. per pound higher.
Cobalt phosphate, powd., 32.1% Co., dms., dlvd lb. 1.35 - —
Cobalt resinate, fused, 3% Co., dms. lb. .33½- —
Cobalt sulfate, cryst., 21% Co., dms., dlvd lb. .64 - —
Monohydrated, 33% Co., dms., dlvd lb. 1.09 - —
Cobalt tallate, 6% Co., dms., dlvd. lb. .44 - —
Cocaine, USP, cns., 100-oz. lots, f.o.b. works oz. 17.50 - —
Cocaine hydrochloride, cns., 100-oz. lots, f.o.b. works oz. 13.75 - —
Cocillana bark, bls lb. .18 - .20
Cocoa butter, bgs. lb. .55½- .61
Coconut oil, crude, tanks, New York lb. .18 - —
tanks, Pac. coast lb. .16¾- —
Refd., deodorized, dms lb. .25 - .26
Coconut oil acids, dist., dms lb. .30½- .33
tanks lb. .28 - —
Double dist. (stripped), dms lb. .31½- .34
tanks lb. .29 - —
Cod oil, dms., spot lb. .08¾- .08½
Codeine, NF, cns., 100-oz. lots oz. 13.25 - —
Codeine hydrochloride, cns., 100-oz. lots oz. 11.75 - —

Codeine phosphate, USP, cns., 100-oz. lots oz. 10.25 - —
Codeine sulfate, USP, cns., 100-oz. lots oz. 10.75 - —
Codliver oil, USP, dms gal. 1.40 - 1.70
Cohosh root, black, bls lb. .20 - .25
Blue, bls. lb. .20 - .25
Colchicine, USP, bots oz. 29.00 - —
Colchicum root, bls lb. .35 - .45
Colchicum seed, bgs lb. 1.00 - 1.25
Collodion, USP, dms lb. .32½- —
USP, flexible, dms lb. .34 - —
Colocynth pulp, bls. lb. .75 - —
Colombo root, bls lb. .16 - .18
Condurango bark, bls lb. .18 - .20
Congo copal gum, No. 1, bgs lb. .25 - .27
No. 2, bgs lb. .22 - .24
No. 3, bgs. lb. .17 - .20
Copaiba balsam, cns., dms lb. .60 - .65
Copaiba oil, cns lb. 1.35 - 2.00
Copper acetate, bbls., c.l., works. lb. .53 - —
bbls., l.c.l., works lb. .54 - —
Copper carbonate, 55%, bgs., c.l., works lb. .3635- —
bgs., l.c.l., works lb. .3785- —
Copper chloride, cupric, anhyd., dms., works lb. .45½- .46
cryst., dihydrate, dms., works. lb. .31 - .31½
cryst., dried, dms., works lb. .39¼- .39¾
Copper chloride, cuprous, dms., works lb. .4135- .4435
Copper cyanide, tech., dms., 20,000-lb. lots or more lb. .609 - —
dms., 1,000-lb. lots or more lb. .619 - —
dms., smaller lots lb. .639 - .65
Copper gluconate, dms lb. 3.20 - —
Copper hydrate, dms., c.l., frt. alld. E. of Miss lb. .53½- —
dms., l.c.l., same basis lb. .54 - —
Copper metal, electrolytic, dlvd. Valley basis lb. .33 - .36
Copper naphthenate, liq., 8% Cu, dms, frt. alld lb. .26½- —
Copper nitrate, tech., cryst., dms., works lb. .30¾ .32¾
Copper oleate, solid, 9% Cu, dms., works lb. .45 - —
Copper oxide, black, bbls., 100-5,000-lb. lots, works lb. .49¼- —
Copper oxide, red, 97% USN Type 1, bbls., 100-5,000-lb. lots. lb. .50½- —
90%, USN Type II, bbls., 100-5,000-lb. lots or more, works. lb. .48½- —
Copper quinolinolate, 18% Cu, dms., ton lots lb. 4.25 - —
10% active quinolinolate, dms lb. 1.14 - 1.15
Copper resinate, precip., dms., frt. alld lb. .41½- —
Copper sulfate, CP, gran., dms., works lb. .1885- —
Cryst., 99%, bgs., c.l., works, 100 lbs. 13.00 - —
bgs., l.c.l., works 100 lbs. 13.25 -15.75
Copper sulfate, monohydrated, 35%, dms., c.l., works 100 lbs. 24.00 - —
dms., l.c.l., works 100 lbs. 24.75 - —
Tribasic, distributors, bgs., c.l., works 100 lbs. 29.60 - —
bgs., l.c.l., works 100 lbs. 31.10 - —
Copper undecylenate, dms lb. 2.75 - —
Copra, Atl., Gulf ports, c.i.f. ton. 227.50 - —
Pac. ports, c.i.f. ton. 222.50 - —
Coriander oil, USP, bots lb. 9.00 -10.00
Coriander seed, Moroccan, bgs lb. .08 - —
Rumanian, bgs. lb. .07½- —
Yugoslavian, bgs. lb. .08½- —
Corn oil, crude, tanks, works lb. .14¼- —
Foots (soapstock) acid 95%, tanks, New York lb. .04¾- —
Refd., salad, dms. lb. .1998- —
tanks lb. .1799- —
Corn oil acids, dist., dms lb. .16¾- .19¼
tanks lb. .14¼- —
Corn sugar, tanners, chipped, paper bgs., c.l., 60,000 lbs. min. 100 lbs. 7.30 - —
paper bgs., l.c.l 100 lbs. 7.45 - —
Corn syrup, 42° Be., non-ret, dms., c.l. 100 lbs. 7.31 - —
non-ret, dms., l.c.l 100 lbs. 7.46 - —
Corrosive sublimate (see Mercuric chloride).
Cortisone acetate, USP, bots., kilo or more gram. 1.05 - 1.90
Costus oil, bots oz. 6.00 - —
Cottonseed meal, 41%, bgs., Memphis ton. 59.00 - —
Cottonseed oil, crude, tanks, South East lb. .09¾- .10
tanks, Valley lb. .09¾- —
tanks, Texas, Lubbock lb. .09¼- —
tanks, Texas, Waco lb. .09⅝- —
Foots (soapstock), acid, 95%, tanks, New York lb. .03¾- —
Refd., salad, dms. lb. .15 - .15¼
tanks lb. .13 - —
Cottonseed oil acids, dist., dms lb. .16¾- .19¼
tanks lb. .14¼- —
Coumarin, NF, cryst., dms lb. 3.30 - 3.40
Cramp bark, NF, bls lb. .90 - 1.00
Cream of tartar (see Potassium bitartrate).
Creosote carbonate, NF, bots., cbys., lb. 3.05 - 3.26
Creosote, coaltar, crude, tanks, works, frt. adjusted gal. .24 - —
Crude, soln. 80%, tanks, works, gal. .226 - —
Refd., dms., c.l., works gal. .50 - —
dms., l.c.l., same basis gal. 62 - —
tanks, same basis gal. .38 - —
West Coast creosote prices computed on a basis of 24c. per gallon for straight oil and 20c. per gallon for coaltar.
Creosote, beechwood, cbys., dms., f.o.b. works, dlvd. in Metropolitan area lb. 1.72 - 1.77
Hardwood, NF, cbys., dms., same basis lb. 1.42 - 1.47
Pinewood, dms., incl., c.l., works. lb. .0561- —
dms., incl., l.c.l., works lb. .0634- —
dms., incl., l.c.l., ex whse, New York lb. .0745- —
tanks, works lb. .0460- —
Creosote oil (see Creosote coaltar).
Cresol, tech., 50% below 204 C., dry above 207 C., wide distillation range, non-ret. dms., c.l., frt. alld lb. .16½- —
non-ret. dms., l.c.l., same basis lb. .17½- —
tanks, same basis lb. .145 - —
USP, non-ret. dms., c.l., same basis lb. .18 - —
non-ret. dms., l.c.l., same basis. lb. .19 - —
tanks, same basis lb. .16 - —
m-Cresol, 95-98%, dms., c.l., works. lb. .60 - —
dms., l.c.l., works lb. .61 - —
m-p-Cresol, 5-95% 3° C., dms., c.l., frt. equald lb. .18 - —
dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .16 - —
2.97% 2° C., dms., c.l., frt. equald. lb. .22 - —
dms., l.c.l., same basis lb. .23 - —
tanks, same basis lb. .20 - —

o-Cresol 30.5°C. m.p. and over, ret. dms., c.l., frt. equald..lb. .17 - —
ret. dms., l.c.l., same basis..lb. .18 - —
tanks, same basis.....lb. .15 - —
30°-30.49°C. m.p., dms., c.l., frt. equald..lb. .16½- —
ret. dms., l.c.l., same basis..lb. .17½- —
tanks, same basis.....lb. .14½- —
29°-29.9°C. m.p., dms., c.l., frt. equald..lb. .16 - —
ret. dms., l.c.l., same basis..lb. .17 - —
tanks, same basis.....lb. .14 - —
25°-28°C. m.p., dms., c.l., frt. equald..lb. .15 - —
ret. dms., l.c.l., same basis..lb. .16 - —
tanks, same basis.....lb. .13 - —
p-Cresol, 98%, dms., c.l., dlvd..lb. .52 - —
dms., l.c.l., dlvd.....lb. .53 - —
tanks, dlvd. .....lb. .49 - —
2,3-Cresotic acid, dms., ton lots, works..lb. .70 - —
dms., smaller lots, works.....lb. .72 - —
p-Cresyl methyl ether, cns.....lb. 1.80 - 2.05
Cresylic acid coaltar, dom., meta-para content above 25%, resins and tricresyl phosphate grades, dms., c.l., t.l., frt. equald..gal. 1.35 - —
dms., l.c.l., same basis..gal. 1.40 - —
tanks, same basis.....gal. 1.15 - —
Cresylic acid, coaltar, dom., meta-para content 25% or less, dms., c.l., t.l., same basis gal. 1.20 - —
dms., l.c.l., same basis..gal. 1.25 - —
tanks, frt. equald.....gal. 1.00 - —
Cresylic acid, coaltar, imp., meta-para content 25% or less, f.o.b. works, frt. equald, to competitive points, 50 dms. or more..gal. 1.03½- —
less than 50 dms., same basis..gal. 1.05 - 1.15
tanks, same basis.....gal. 1.00 - —
Crotonaldehyde, 91-93%, dms., l.c.l, works..lb. .25 - —
Crotonic acid, dms., 200 lbs. or more, l.c.l., dlvd..lb. .36 - —
Cryolite, nat., indust., bgs., c.l., works..100 lbs.13.00 - —
bgs., l.c.l., works.....100 lbs.14.25 - —
Cube root, powd., 5% rotenone, bgs., t.l., works..lb. .21 - —
bgs., l.t.l., works.....lb. .22 - —
Cubeb berries, NF, bgs.....lb. 1.00 - —
Powd., cs. .....lb. 1.15 - —
Cubeb oil, cns.....lb.12.00 -16.00
Cumene, dms., c.l., works.....lb. .12 - —
dms., l.c.l., works.....lb. .14 - —
tanks, works .....lb. .11 - —
Cumin seed, Iranian, bgs.....lb. .30 - —
Moroccan, bgs. .....lb. .31 - —
Turkish, bgs. .....lb. .27 - —
Cumin seed oil, bots., cns.....lb.15.50 -17.00
Cyanamide, fertilizer, mixing grade, 21% N, gran., bgs., Niagara Falls, Ont., contract ton.57.00 - —
Fertilizer, pulv., 21% N, bgs., works unit-ton. 2.85 - —
Indust. grade, bgs., c.l. works, ton.75.00 - —
bgs., l.c.l., works .....ton.96.00 - —
Indust. grade, 6-16 mesh, dms., c.l., works..ton.120.00 - —
dms., l.c.l., works .....ton.140.00 - —
Cyclohexane, 99%, tech., dms., c.l., dlvd. E. of Rockies..gal. 1.02 - —
dms., l.c.l., same basis .gal. 1.10 - —
dms., c.l., dlvd. W. of Rockies..gal. .77 - —
dms., l.c.l., same basis..gal. .85 - —
tanks, works .....gal. .55 - —
98%, tech., 40-dm. lots or more, f.o.b. works..gal. .56 - —
5-39 dms., same basis ...gal. .60 - —
tanks, same basis .....gal. .36 - —
Cyclohexanol, tech., dms., c.l., works, frt. alld. E lb. .28½- —
dms., l.c.l., works, same basis. lb. .29½- —
tanks, works, same basis ...lb. .26 - —
Cyclohexanone, tech., dms., c.l., works lb. .33½- —
dms., l.c.l., works.....lb. .34½- —
tanks, works .....lb. .31 - —
Cyclohexylamine, dms., c.l., works. lb. .49 - —
dms., l.c.l., works.....lb. .50 - —
tanks, works .....lb. .47 - —
Cypress oil, bots.....lb. 5.30 - —

D

2,4-D, tech., bgs., dms., c.l., works, frt. equald..lb. .40 - —
bgs., dms., l.c.l., same basis..lb. .45 - .49
2,4-D butyl ester, dms., c.l., works. lb. .43 - —
dms., l.c.l., same basis.....lb. .48 - .52
tanks, same basis.....lb. .42 - —
2,4-D isopropyl ester, dms., c.l., works..lb. .43 - —
dms., l.c.l., works.....lb. .48 - .52
tanks, works .....lb. .42 - —
Dammar gum, Batavia, A E, cs..lb. No stocks.
East India, Batu, bold, bgs. ..lb. .15 - .17
nubs and chips, bgs. .....lb. .09 - .10
black, bold, bgs. .....lb. .15 - .17
nubs and chips, bgs. .....lb. .12¼- .13½
unscraped, bgs. .....lb. .13 - .14½
pale, chips, bgs. .....lb. .15 - .17
pale, nubs, bgs. .....lb. .20¾- .24
Siam, cs. .....lb. .30 - .33
Singapore, No. 1, bgs. .....lb. .34 - .40
No. 2, bgs. .....lb. .29 - .32
No. 3, bgs. .....lb. No stocks.
dust, bgs. .....lb. .18 - .20
Dandelion root, bls. .....lb. .28 - .32
DDD, tech., flake, grd., fib. dms., c.l., works..lb. .45 - .47
fib. dms., l.c.l., works..lb. .46 - .48
DDT, flake or lump, bgs., c.l., dlvd lb. .23 - —
bgs., smaller lots, same basis. lb. .25 - —
fib. dms., c.l., same basis ...lb. .24 - —
fib. dms., smaller lots, same basis lb. .26 - —
Powdered DDT 1c. per pound higher.
DDVP (see Dimethyl dichlorovinyl phosphate).
1-Decanol, tech., dms., c.l., dlvd. E. lb. .43½- —
dms., l.c.l., dlvd. E. .....lb. .45½- —
tanks, dlvd. E. .....lb. .41 - —
Decyl alcohol, mixed isomers, dms., c.l., dlvd..lb. .23½- —
dms., l.c.l., dlvd. .....lb. .25 - —
tanks, dlvd. .....lb. .21 - —
Perfume grade, bots. .....lb. 1.00 - 2.00
Decyl alcohol, normal (see 1-Decanol).
Deertongue leaves, bls. .....lb. .55 - .60
Defluorinated phosphate, feed grade, 13% P, paper bgs., c.l., t.l., works ton.53.00 - —
18% P, paper bgs., c.l., works. ton.66.25 -71.80
19% P, paper bgs., c.l., t.l., works, Houston, Tex ton.74.35 - —
Prices of defluorinated phosphate in bulk $3 per ton less than bg. c.l. prices.

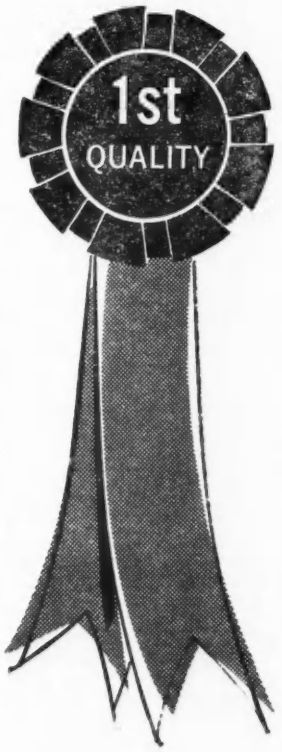
Degras, common (15-17% free fatty acid), 400-lb. dms. lb. .12 - —
Neutral (over 2% free fatty acid), 400-lb. dms. lb. .19 - .23
Denatured alcohol, ethyl, CD-12, CD-13, CD-14, CD-17, dms., c.l., dlvd. E. of Rockies. gal. .69½- —
dms., l.c.l., same basis .....gal. .74½- .80½
tanks, dlvd., same basis ...gal. .53½- —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, proprietary solvent, dms., c.l., dlvd. E. of Rockies..gal. .72 - —
dms., l.c.l., same basis.....gal. .77 - .83
tanks, same basis .....gal. .56 - —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, SD1, dms., dlvd. E. of Rockies..gal. .70½- —
dms., l.c.l., same basis ...gal. .75½- .81½
tanks, same basis .....gal. .54½- —
SD2B, dms., c.l., dlvd. E. of Rockies..gal. .69 - —
dms., l.c.l., same basis ...gal. .74 - .80
tanks, same basis .....gal. .53 - —
SD3A, dms., c.l., dlvd. E. of Rockies..gal. .68 - —
dms., l.c.l., same basis ...gal. .73 - .79
tanks, same basis .....gal. .52 - —
SD23A, dms., c.l., dlvd. E. of Rockies..gal. .70½- —
dms., l.c.l., same basis ...gal. .75½- .81½
tanks, same basis .....gal. .54½- —
SD23H, dms., c.l., dlvd. E. of Rockies..gal. .71 - —
dms., l.c.l., same basis ...gal. .76 - .82
tanks, same basis .....gal. .55 - —

Denatured alcohol, ethyl SD29, dms., c.l. dlvd. E. of Rockies. gal. .69½- —
dms., l.c.l., same basis ... gal. .74½- .80½
tanks, same basis ..... gal. .53½- —
SD30, dms., c.l., dlvd. E. of Rockies..gal. .68 - —
dms., l.c.l., same basis ...gal. .73 - .79
tanks, same basis ..... gal. .52 - —
SD-35A, dms., c.l., dlvd. E. of Rockies..gal. .71 - —
dms., l.c.l., same basis ...gal. .76 - .82
tanks, same basis ..... gal. .55 - —
SD-40, dms., c.l., dlvd. E. of Rockies..gal. .70½- —
dms., l.c.l., same basis ...gal. .75½- .81½
tanks, same basis ..... gal. .54½- —
For anhyd. alcohol on above formulas prices are 7c. per gal. higher.
West coast dlvd. prices are the same as eastern prices, except in Idaho, Montana, Oregon, and Washington where a 5c. differential on tankcars is maintained.
d-Desoxyephedrine hydrochloride, dms lb..15.00 -17.00
dl-Desoxyephedrine hydrochloride, dms lb. 6.50 - —
Dextrin, corn, gum, paper bgs., c.l., 100 lbs. 9.38 - —
paper bgs., l.c.l. .....100 lbs. 9.53 - —
canary dark, paper bgs., c.l. 100 lbs. 9.22 - —
paper bgs., l.c.l. .....100 lbs. 9.37 - —

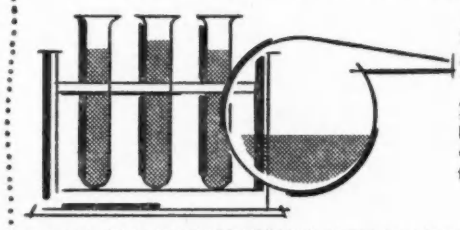
Dextrin, corn, indust. grade, 6-16 mesh, canary light, paper bgs., c.l 100 lbs. 9.12 - —
paper bgs., l.c.l. .....100 lbs. 9.27 - —
white, paper bgs., c.l 100 lbs. 8.96 - —
paper bgs., l.c.l. .....100 lbs. 9.11 - —
Corn dextrin in cotton bgs. 15c. per 100 lbs. higher.
Dextrose, anhyd., coml., bgs., c.l. 100 lbs. 8.65 - —
bgs., l.c.l. .....100 lbs. 8.80 - —
Anhyd., special, aluminum foil lined fib. dms., 200-lb. dms 100 lbs.14.70 - —
100-lb. dms. .....100 lbs.15.20 - —
Hydrated, coml., bgs., c.l., ex whse 100 lbs. 7.45 - —
bgs., c.l., ex whse ...100 lbs. 7.60 - —
USP, dms. .....lb. .19¾- —
Diacetyl, flavor grade, bots. ....lb. 4.30 - 4.55
Di-sec-amyl phenol, dms., c.l., works lb. .32 - —
dms., l.c.l., works .....lb. .33 - —
tanks, works .....lb. .29½- —
Di-tert-amyl phenol, dms., c.l., works lb. .32 - —
dms., l.c.l., works .....lb. .33 - —
tanks, works .....lb. .29½- —
Diacetone alcohol, acetone-free, dms., c.l., dlvd lb. .15½- —
dms., l.c.l., dlvd. .....lb. .17 - —
tanks, dlvd. .....lb. .13 - —
Tech., dms., c.l., dlvd. .....lb. .15 - —
dms., l.c.l., dlvd. .....lb. .16½- —
tanks, dlvd. .....lb. .12½- —

YOU BENEFIT 5 WAYS

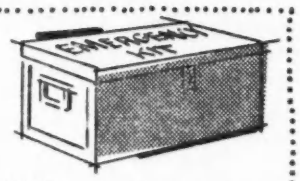
with SOLVAY CHLORINE!



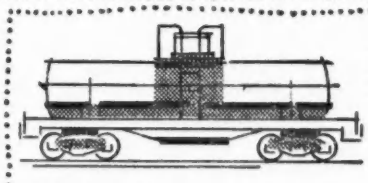
PRODUCT You get chlorine made by America's foremost producer of alkalies. Outstanding in a line that has set the industry's standards!



SERVICE You get the help of chlorine specialists in Solvay Technical Service working on your problems. Fast aid and expert literature in the use, handling and storage of chlorine for textiles, paper, water, sewage.



SAFETY You get safety programs and equipment pioneered by Solvay. Emergency Kits you can buy or borrow for cylinders, 1-ton containers, tank cars. Safety wall charts displaying vital unloading, handling, first aid facts.



PACKAGING You get Solvay® Liquid Chlorine in the package most convenient for you. Tank cars—32,000 lbs., 60,000 lbs., 110,000 lbs. Multiple unit cars of 15 1-ton containers. 150-lb. cylinders.

DELIVERY You get carload and l.c.l. orders speedily from production centers in Syracuse, N. Y., Moundsville, W. Va., Hopewell, Va., Brunswick, Ga., Baton Rouge, La. and a network of distribution points.

Sodium Nitrite • Calcium Chloride • Chlorine • Caustic Soda Caustic Potash • Potassium Carbonate • Sodium Bicarbonate Chloroform • Methyl Chloride • Soda Ash • Vinyl Chloride Ammonium Chloride • Methylene Chloride • Carbon Tetrachloride • Snowflake® Crystals • Monochlorobenzene • Orthodichlorobenzene • Para-dichlorobenzene • Ammonium Bicarbonate • Hydrogen Peroxide • Aluminum Chloride • Cleaning Compounds • Mutual® Chromium Chemicals

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Please send me without cost these Solvay Technical Bulletins:

☐ #7—"Liquid Chlorine" ☐ #11—"Water Analysis"
☐ #8—"Alkalies and Chlorine in Treatment of Municipal and Industrial Water"
☐ #12—"The Analysis of Liquid Chlorine and Bleach"
☐ #14—"Chlorine Bleach Solutions"
☐ Chlorine Safety Wall Chart.
☐ Have your representative call.

Name _____
Position _____
Company _____
Phone _____
Address _____
City _____ Zone ____ State _____

Diallylamine, dms., c.l., dlvd. ....lb. .98½- —
dms., l.c.l., dlvd. ....lb. 1.00 • —
tanks, dlvd. ....lb. .96 • —
o-Dianisidine, dry, tech., fib. dms. lb. 2.00 • —
Dibenzyl sebacate, dms., c.l., works. lb. .93 • —
dms., l.c.l., same basis....lb. .94 • —
tanks, same basis....lb. .91 • —
Dibromobenzene, bgs., 500-lb. lots. lb. .55 • —
2,6-Di-tert-butyl-p-cresol, feed grade, c.l., t.l., dms., dlvd. ..lb. .65 • —
l.t.l., dms., same basis ....lb. .68 • —
Food grade, c.l., t.l., dms., dlvd. lb. .65 • —
dms., l.t.l., same basis ....lb. .68 - 1.10
Tech., dms., c.l., t.l., dlvd. ....lb. .57 • —
dms., l.c.l., same basis....lb. .60 • —
tanks, same basis....lb. .54 • —
Dibutyl fumarate, dms., c.l., t.l., dlvd. E lb. .31½- —
dms., l.c.l., l.t.l., dlvd. E ....lb. .33 • —
tanks, dlvd. E....lb. .29 • —
Dibutyl maleate, dms., c.l., t.l., dlvd. E lb. .31½- —
dms., l.c.l., l.t.l., dlvd. E....lb. .33 • —
tanks, dlvd. E....lb. .29 • —
Dibutyl phthalate, dms., c.l., dlvd. E lb. .28½- —
dms., l.c.l., same basis....lb. .30 • —
tankcars, tanktrucks, 2,000 gals., same basis lb. .26 • —
tanktrucks, 1,000-1,999 gals., same basis lb. .26½- —
Dibutyl sebacate, dms., c.l., works. lb. .67½- —
dms., l.c.l., works....lb. .68½- —
tanks, works....lb. .65½- —
Dibutyl tartrate, dms., works, frt. alld lb. .65½- —
Dibutylamine, dms., c.l., dlvd. lb. .55½- —
dms., l.c.l., same basis....lb. .57 • —
tanks, same basis....lb. .53 • —
Dicapryl phthalate, dms., c.l., dlvd. lb. .27½- —
dms., l.c.l., dlvd. ....lb. .29 • —
tanks, dlvd. ....lb. .25 • —
Dicapryl sebacate, dms., c.l., works. lb. .63 • —
dms., l.c.l., works....lb. .63½- .64
tanks, works ....lb. .61 • —
2,5-Dichloroaniline, dms., works lb. .83 • —
3,4-Dichloroaniline, tech., solid, tanks, frt. alld lb. .73 • —
o-Dichlorobenzene, dms., c.l., frt. alld. E lb. .12¾- —
dms., l.c.l., same basis....lb. .13¾- —
tanks, same basis ....lb. .11 • —
p-Dichlorobenzene, dms., c.l., f.o.b. works, frt. alld. E lb. .12 • —
dms., 2,000 lbs. or more same basis lb. .14½- —
1,4-Dichlorobutane, dms., c.l., or t.l., works lb. .33½- —
dms., l.c.l., or l.t.l., works....lb. .34 • —
tanks, works....lb. .32 • —
Dichlorodiphenyltrichloroethane (see DDT).
2,2-Dichloroethyl ether, dms., c.l., t.l., dlvd. E lb. .15½- —
dms., l.c.l., l.t.l., same basis....lb. .17 • —
tanks, same basis....lb. .13 • —
Dichloroisocyanuric acid, dms., c.l., t.l., frt. equald lb. .65 • —
dms., l.c.l., same basis....lb. .75 • —
Dichloropentanes, dist., dms., c.l., works lb. .05 • —
dms., l.c.l., works ....lb. .06 • —
tanks, works ....lb. .03 • —
Dichlorophenoxyacetic acid (see 2,4-D).
Dicyclohexylamine, dms., c.l., works. lb. .54 • —
dms., l.c.l., works....lb. .55 • —
tanks, works ....lb. .52 • —
Dicyclohexyl phthalate, gran., fib. dms., c.l., works, frt. alld. lb. .46½- —
fib. dms., l.c.l., same basis ..lb. .48 • —
Dicyclopentadiene, dms., c.l., f.o.b. works lb. .14½- —
dms., l.c.l., same basis ....lb. .14¾- —
tanks, same basis ....lb. .12 • —
Didecyl phthalate, dms., c.l., works. lb. .28½- —
dms., l.c.l., same basis ....lb. .30 • —
tankcars, tanktrucks, 2,000 gals. lb. .26 • —
tanktrucks, 1,000-1,999 gals, same basis lb. .26½- —
Dieldrin, dms., c.l., dlvd. ....lb. 1.85 • —
cms., l.c.l. dlvd. ....lb. 1.90 • —
Diethanolamine, dms., c.l., dlvd. E. lb. .27 • —
dms., l.c.l., same basis....lb. .28½- —
tanks, same basis ....lb. .24½- —
Diethanolamine lauryl sulfate, dms., c.l., frt. alld lb. .27½- —
dms., l.t.l., frt. alld. ....lb. .28½- —
tanks, frt. alld. ....lb. .26½- —
Diethyl barbituric acid (see Barbital).
Diethyl carbonate, dms., c.l., f.o.b. works lb. .47½- —
dms., l.c.l., same basis ....lb. .48½- —
tanks, same basis ....lb. .45 • —
Diethyl ethanolamines, dms., c.l., dlvd. lb. .69½- —
dms., l.c.l., dlvd. ....lb. .71 • —
tanks, dlvd. ....lb. .67 • —
Diethyl oxalate, dms., c.l., f.o.b. works lb. .42½- —
dms., l.c.l., same basis....lb. .43½- —
tanks, same basis ....lb. .40 • —
Diethyl phthalate, dms., c.l., dlvd. lb. .27½- —
dms., l.c.l., dlvd. ....lb. .29 • —
tanktrucks, 1,000-1,999 gals, same basis lb. .26½- —
tankcars, tanktrucks, 2,000-lb. lots, same basis lb. .26 • —
Diethyl sulfate, dms., c.l., works lb. .18½- —
dms., l.c.l., works ....lb. .20¼- —
tanks, works ....lb. .17½- —
Diethyl thiourea, dms., c.l., t.l., works lb. .58 • —
dms., l.c.l., same basis ....lb. .59 • —
Diethyl toluamide, 90-95% meta isomer, dms., c.l., t.l., works. lb. 2.30 • —
5-44 dm. lots, works....lb. 2.35 • —
1-4 dm. lots, works ....lb. 2.40 • —
N,N-Diethyl-m-toluidine, tech., liq., tanks, frt. alld lb. .83 • —
Diethylamine, dms., c.l., dlvd. E lb. .52 • —
dms., l.c.l., same basis....lb. .53½- —
tanks, same basis ....lb. .49½- —
N,N-Diethylaniline, dms., c.l., frt. alld lb. .57 • —
dms., l.c.l., same basis ....lb. .58 • —
tanks, same basis ....lb. .55 • —

Diethylbenzene, dms., t.l., frt. alld. lb. .16½- —
Di-2-ethylhexyl adipate (see Dioctyl adipate).
Di-2-ethylhexyl phthalate (see Dioctyl phthalate).
Diethylene glycol, dms., c.l., dlvd. E. lb. .17¾- —
dms., l.c.l., same basis ....lb. .19¼- —
tanks, same basis ....lb. .15¼- —
Diethylene glycol diethyl ether, dms., c.l., works. lb. .51½- —
dms., l.c.l., works ....lb. .52¼- —
Diethylene glycol monobutyl ether, c.l., dms., works lb. .30¾- —
dms., l.c.l., works ....lb. .32¼- —
tanks, dlvd. E. ....lb. .28¾- —
Diethylene glycol monobutyl ether acetate, dms., c.l., works. lb. .30¾- —
dms., l.c.l., works ....lb. .31½- —
tanks, dlvd. E. ....lb. .28¾- —
Diethylene glycol monoethyl ether, dms., c.l., dlvd. lb. .22½- —
dms., l.c.l., dlvd. ....lb. .24 • —
tanks, dlvd. E. ....lb. .20 • —
Diethylene glycol monoethyl ether acetate, dms., c.l., works. lb. .27¼- —
dms., l.c.l., works ....lb. .28 • —
tanks, works ....lb. .25¼- —
Diethylene glycol monomethyl ether, dms., c.l., dlvd. lb. .21 • —
dms., l.c.l., dlvd. ....lb. .22½- —
tanks, dlvd. E. ....lb. .18½- —
Diethylenetriamine, dms., c.l., dlvd. E lb. .44 • —
dms., l.c.l., dlvd. E. ....lb. .45½- —
tanks, dlvd. E. ....lb. .41½- —
Diethylstilbesterol, USP, bots., 10-kilo lots kilo.100.00 -147.50
bots, 1-kilo lot ....kilo.110.00 -152.50
Digitalis leaves, USP, dom., dms lb. 1.25 • —
Digitoxin, USP, bots. ....gram. 4.20 • —
Diglycol laurate, dms. ....lb. .32¾- .34
Diglycol stearate, dms., ton lots lb. .26 • .28
Diglycolic acid, bgs., c.l., t.l., works. lb. .15½- —
bgs., l.c.l., works ....lb. .16 • —
Dihexyl sebacate, dms., c.l., works. lb. .66 • —
dms., l.c.l., works ....lb. .67 • —
tanks, works ....lb. .64 • —
Dihydrazine sulfate, dms., works lb. 1.10 - 1.25
Dihydrostreptomycin sulfate, bulk. gram. .035 - .036
1,2-Dihydroxy anthraquinone, dms., works lb. 3.45 • —
2,2-Dihydroxy-5-5-dichloro-diphenyl-methane, pure, dms lb. 2.55 • —
Tech., dms., 20,000 lbs. or more lb. 1.11 • —
dms., 1,050 lbs. to 20,000 lbs. lb. 1.13 • —
dms., 150 lbs. to 1,050 lbs....lb. 1.15 • —
Di-isobutyl ketone, dms., c.l., dlvd. lb. .17 • —
dms., l.c.l., dlvd. ....lb. .18½- —
tanks, dlvd. ....lb. .14½- —
Di-isobutyl phthalate, dms., c.l., dlvd. E. lb. .31½- —
dms., l.c.l., same basis ....lb. .32½- —
tanks, same basis ....lb. .29 • —
Di-isobutylene, dms., c.l., dlvd. E lb. .10 • —
dms., l.c.l., dlvd. E....lb. .11½- —
tanks, dlvd. E. ....lb. .08 • —
Di-iso-octyl phthalate, dms., c.l., dlvd. lb. .27½- —
dms., l.c.l., same basis ....lb. .29 • —
tanktrucks, 1,000-1,999 gals., dlvd. lb. .25½- —
tankcars, tanktrucks, 2,000 gals., dlvd lb. .25 • —
Di-iso-octyl sebacate, dms., c.l., works lb. .62 • —
dms., l.c.l., works....lb. .62½- .63
tanks, works ....lb. .60 • —
Di-isopropanolamine, dms., c.l., dlvd. lb. .23¼- —
dms., l.c.l., same basis ....lb. .24¾- —
tanks, same basis ....lb. .20¾- —
Di-isopropylamine dms., c.l., dlvd. E. of Rockies lb. .50½- —
dms., l.c.l., same basis....lb. .52 • —
tanks, same basis ....lb. .48 • —
Dillweed oil, dom., bots., dms lb. 3.00 - 4.00
Dimethyl anthranilate, cns. ....lb. 4.15 • —
Dimethyl dichlorovinyl phosphate, 55-gal. dms., dlvd lb. 3.50 • —
Dimethyl ethanolamines, anhyd., dms., c.l. dlvd. lb. 1.225 • —
dms., l.c.l., dlvd. ....lb. 1.235 • —
tanks, dlvd. ....lb. 1.20 • —
70% dms., c.l., dlvd., 100% basis, contained amines lb. .68½- —
dms., l.c.l., dlvd., 100% basis. lb. .69½- —
tanks, dlvd., 100% basis ....lb. .66 • —
Dimethyl hydroquinone, dms. ....lb. 1.90 - 2.20
Dimethyl phthalate, dms., c.l., works lb. .27½- —
dms., l.c.l., works ....lb. .29 • —
tanktrucks, 1,000-1,999 gals., same basis lb. .25½- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .25 • —
Dimethyl sebacate, dms., c.l., works. lb. 1.31 • —
dms., l.c.l., works....lb. 1.30 • —
tanks, works ....lb. 1.28 • —
Dimethyl sulfate, ret. dms., c.l., works lb. .17½- —
ret. dms., l.c.l., works....lb. .18½- —
tanks, works ....lb. .16½- —
Dimethyl sulfide, dms., c.l., works. lb. .16½- —
dms., l.c.l., works....lb. .17 • —
tanks, works....lb. .15 • —
Dimethylamine, 25% soln., dms., c.l., frt. equald, 100% basis lb. .38 • —
dms., l.c.l., frt. equald, 100% basis lb. .38½- —
tanks, frt. equald, 100% basis. lb. .28 • —
40% soln., dms., c.l., frt. equald, 100% basis lb. .35 • —
dms., l.c.l., frt. equald, 100% basis lb. .35½- —
tanks, frt. equald, 100% basis. lb. .28 • —
N,N-Dimethylaniline, dms., c.l., frt. alld. lb. .28 • —
dms., l.c.l., same basis....lb. .29 • —
tanks, same basis ....lb. .26 • —
N,N-Dimethylformamide, dms., c.l., t.l., works. lb. .32½- —
dms., l.c.l., works....lb. .33 • .34
tanks, works....lb. .30 • —
2,4-Dinitroaniline, dms., frt. alld. lb. .75 • —
Dinitroaniline orange toner, CP, bbls., dlvd. E. of Rockies. lb. 1.56 • —
Dinitroaniline orange toner prices 1c higher W. of Rockies.
m-Dinitrobenzene, 89°C., dms. .lb. .26 • —

2,4-Dinitrochlorobenzene, crystallizing at 46½°C., dms., c.l., frt. alld. E lb. .17¼- —
dms., l.c.l., frt. alld. E. ....lb. .17¾- —
tanks, frt. alld. E. ....lb. .17 • —
2,4-Dinitrophenol, bbls. ....lb. .41 • —
2,4-Dinitrotoluene, oil, dms. ....lb. .11 • —
Refd., 63°C., dms. ....lb. .23 • —
Dioctyl adipate, dms., c.l., works lb. .42½- —
dms., l.c.l., works ....lb. .43½- —
tanks, works ....lb. .40 • —
Dioctyl phthalate, dms., c.l., frt. alld lb. .27½- —
dms., l.c.l., frt. alld. ....lb. .29 • —
tanktrucks, 1,000-1,999 gals., same basis lb. .25½- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .25 • —
Dioctyl sebacate, dms., c.l., works. lb. .61¼- —
dms., l.c.l., works ....lb. .62¼- —
dms., l.c.l., works....lb. .62¼ —
tanks, works, dlvd. ....lb. .59¼- —
1,4-Dioxane, dms., c.l., works....lb. .30 • —
dms., l.c.l., works ....lb. .30¾- —
tanks, works ....lb. .28 • —
Dipentaerythritol, bgs., c.l., t.l., dlvd. E lb. .40 • —
bgs., l.c.l., l.t.l., dlvd. E. ....lb. .41 • —
Dipentene, dest.-dist., dms., c.l., works. gal. .59 • —
dms., l.c.l., works ....gal. .63 • —
dms., l.c.l., ex whse....gal. .79 • —
tankcars, works ....gal. .42 • —
Steam dist., dms., c.l., works, South gal. .72 • —
dms., l.c.l., dlvd. New York gal. .91 • —
tanks, works, South ....lb. .55 • —
Dip oil (see Tar acid oil).
Diphenolic acid, 1,000-lb. or more, bgs., works lb. .75 • —
Diphenolic polyether acids, 1,000-lb. or more, bgs., works lb. 1.00 • —
Diphenyl, bgs., c.l., t.l., works....lb. .16¾- —
bgs., l.c.l., works ....lb. .18½- —
tanks, works ....lb. .15¾- —
Diphenyl oxide, perfume grade, cns. lb. .55 • .70
Diphenyl phthalate, dms., c.l., works. lb. .51¾- —
dms., l.c.l., works ....lb. .53¾- —
Diphenylamine, refd., flake, bgs., c.l., works, frt. equald lb. .31 • —
bgs., l.c.l., same basis ....lb. .33 • —
Refd., fused, tanks, same basis lb. .28 • —
Refd., diphenylamine in dms., ½c. per lb. higher.
Diphenylguanadine, bgs., dms., ton lots, frt. alld lb. .49 • —
bgs., smaller lots, frt. alld....lb. .50 • —
Diphenylhydantoin-sodium, USP, dms lb. 5.00 - 5.60
Dipropylene glycol, dms., c.l., frt. alld lb. .17 • —
dms., l.c.l., frt. alld. ....lb. .18½- —
tanks, frt. alld. ....lb. .14¼- —
Dipropylene glycol methyl ether, dms., c.l., dlvd. E lb. .20 • —
dms., l.c.l., same basis....lb. .21½- —
tanks, same basis ....lb. .18½- —
Dithiodibenzoic acid, dms., 1,000-lb. lots, works lb. 1.45 • —
Di-o-tolylguanidine, dms., ton lots, frt. alld lb. .69 • —
dms., smaller lots, frt. alld....lb. .70 • —
Di-o-tolylthiourea, tech., solid, dms., c.l., t.l., frt. alld lb. .55 • —
Divinylbenzene, 20-25%, dms., c.l., works, frt. equald lb. .20 • —
dms., l.c.l., same basis....lb. .21 • —
tanks, same basis ....lb. .19 • —
50-60%, dms., c.l., works, 100% basis lb. 1.00 • —
dms., l.c.l., works, 100% basis. lb. 1.05 • —
tanks, same basis ....lb. .90 • —
Dodecenyl succinic anhydride, dms., c.l., t.l., dlvd. E lb. .75 • —
dms., l.c.l., l.t.l., same basis lb. .76 • —
Dodecylbenzene, dms., c.l., f.o.b., works, frt equald lb. .134 • —
dms., l.c.l., same basis....lb. .144 • —
tanks, same basis....lb. .11 • —
Dodecylphenol, c.l., frt. alld. ....lb. .22 • —
dms., l.c.l., same basis....lb. .23 • —
tanks, same basis....lb. .19½- —
Dodecylphenol prices on shipments to Western States are 2c. per pound higher.

Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb. and 1-lb. lots, dlvd.:
Blue, FD&C, No. 1....lb.15.65 -17.60
No. 2 ....lb.15.65 -17.60
Green, FD&C, No. 1....lb.15.65 -17.60
No. 2 ....lb.19.60 -22.85
No. 3 ....lb.31.30 -35.90
Red, FD&C, No. 1 ....lb. 5.90 - 7.85
No. 2 ....lb. 3.30 - 4.10
No. 3 ....lb.19.60 -22.85
No. 4 ....lb. 5.55 - 7.50
Violet, FD&C, No. 1....lb.15.65 -17.60
Yellow, FD&C, No. 1 ....lb. 9.15 -11.05
No. 5 ....lb. 3.30 - 4.10
No. 6 ....lb. 3.30 - 4.10

Dyes, coaltar, certified colors for drugs and cosmetics, 200-lb. and 1-lb. lots, dlvd.:—
Black, D&C, No. 1 ....lb.10.50 -10.95
Brown, D&C, No. 1 ....lb.15.65 -16.10
Green, D&C, No. 5 ....lb.15.65 -16.10
No. 6 ....lb.15.65 -16.10
No. 7 ....lb.14.35 -14.80
Orange, D&C, No. 3 ....lb.10.50 -10.95
No. 4 ....lb.19.60 -20.05
No. 5 ....lb. 3.80 - 4.25
Red, D&C, No. 17 ....lb.10.50 -10.95
No. 18 ....lb.23.60 -24.00
No. 19 ....lb.15.00 -15.45
No. 21 ....lb. 3.90 - 4.35
No. 22 ....lb.10.50 -10.95
No. 28 ....lb.24.15 -24.65
No. 33 ....lb.17.00 -17.45
Violet, D&C, No. 2 ....lb.15.65 -16.10
Yellow, D&C, No. 7 ....lb.10.50 -10.95
No. 8 ....lb.10.50 -10.95
No. 10 ....lb.13.05 -13.50
No. 11 ....lb.13.05 -13.50

Dyes, coaltar, certified colors for drugs and cosmetics, external use, 500-lb. and 1-lb. lots, dlvd.:—
Blue, Ext., D&C, No. 1....lb.15.65 -16.10
Green, Ext., D&C, No. 1....lb.15.65 -16.10
Red, Ext., D&C, No. 1....lb.13.05 -13.50
Yellow, Ext., D&C, No. 1....lb.10.50 -10.95

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Color Index scale or prototype), contract dlvd. No.
11110 Brilliant scarlet BN....lb. 1.79 • —
13390 Fast blue SR....lb. 1.43 • —
14025 Yellow 2G ....lb. 1.26 • —
14030 Orange R, extra, conc. ..lb. 1.64 • —
14645 Chrome black T....lb. .77 • —
14720 Rubine XX, conc. ....lb. 1.59 • —
15510 Orange Y, extra conc. ..lb. .83 • —
15575 Orange RR....lb. .99 • —

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Colour Index scale of prototype), contract, dlvd. No.
15620 Fast Red A, conc....lb. 1.61 • —
15705 Chrome blue black R, conc. lb. 1.12 • —
16150 Scarlet 2RL ....lb. 1.22 • —
16255 Brilliant scarlet 3RN, conc. lb. 1.26 • —
16230 Fast light, orange 2G....lb. 1.39 • —
17590 Brown PG ....lb. 3.00 • —
18050 Phloxine 2G ....lb. 1.05 • —
18055 Fuchsine 6B ....lb. 1.55 • —
18965 Fast yellow 2G ....lb. 2.32 • —
19140 Yellow XX ....lb. 2.48 • —
19555 Yellow NN, conc. ....lb. 3.67 • —
20170 Brown Y ....lb. 1.33 • —
20470 Blue black, extra, conc..lb. 1.44 • —
21010 Brown, RX, conc. ....lb. 1.35 • —
22240 Scarlet B ....lb. 2.81 • —
22310 Red FC ....lb. 1.57 • —
22311 Brown MCW ....lb. 1.47 • —
22590 Diazo black BHD....lb. .93 • —
22610 Blue 2B, extra conc. ....lb. 1.53 • —
23500 Red, 4BX, conc. ....lb. 1.80 • —
24410 Sky blue FF, extra, conc.lb. 1.95 • —
24895 Brilliant yellow, conc. ..lb. 3.27 • —
26360 Navy blue 3R, conc. ....lb. 1.84 • —
26695 Black F, conc. ....lb. 2.30 • —
26900 Milling Red 3R, conc. ....lb. 1.91 • —
27075 Neutral black 2B, conc..lb. 2.75 • —
27720 Gray L ....lb. 2.18 • —
29185 Fast scarlet 4BNC....lb. 2.23 • —
30015 Diazo black VJ conc. ....lb. 2.48 • —
30045 Yellow brown K, extra..lb. 1.26 • —
30235 Black EB, 200% ....lb. 1.33 • —
30295 Green BY, conc. ....lb. 1.07 • —
35660 Brown B ....lb. 2.89 • —
37565 Naphthol SWF ....lb. 1.85 • —
40000 Yellow 2G ....lb. 1.44 • —
41000 Yellow OX ....lb. 2.45 • —
42000 Green V, crystals ....lb. 2.73 • —
42040 Brilliant green G crystals.lb. 3.62 • —
42090 Blue EG ....lb. 1.85 • —
42100 Milling green 6B, conc. ..lb. 4.78 • —
42640 Violet 4BNN ....lb. 2.43 • —
42830 Brilliant blue, BBG....lb. 2.44 • —
44045 Blue B, extra conc. ....lb. 3.61 • —
45170 Red BX ....lb. 4.76 • —
50415 Nigrosine SSJ ....lb. 1.03 • —
52015 Blue GXX ....lb. 2.33 • —
53185 Black, GXCF, conc. ....lb. .38 • —
58005 Alizarin red SC ....lb. 3.64 • —
59700 Golden orange GFD, single paste lb. 2.70 • —
59710 Flaming orange 6RD double powder lb. 4.90 • —
59800 Dark blue BO, single paste. lb. 2.28 • —
59825 Jade green NC supra, double paste lb. 1.50 • —
61570 Alizarin green CG, extra lb. 3.81 • —
63010 Alizarin blue SAPG ....lb. 3.90 • —
63615 Alizarin blue black B ....lb. 3.26 • —
66825 Blue BLFD double paste lb. 2.82 • —
70800 Brown BR single paste ..lb. 2.03 • —

Dyes, coaltar, oil-soluble, 100-lb. drums, dlvd. No.
12140 Oil scarlet BL ....lb. 1.87 • —
12055 Oil orange 7078 V ....lb. 1.38 • —
26120 Oil red N 1700 ....lb. 1.94 • —
42535B Methyl violet base....lb. 1.88 • —
44045B Victoria blue base ....lb. 4.06 • —
50415B Oil black 8603 ....lb. .80 • —
61565 Alizarin cyanine green base. lb. 6.13 • —
Spirit black RB ....lb. 3.89 • —
Spirit brown GN ....lb. 5.30 • —
Spirit orange R conc. ....lb. 5.87 • —
Spirit red B conc ....lb. 6.41 • —
Pr. 517 Spirit yellow 2R conc..lb. 4.62 • —
Pr. 554 Spirit blue THN....lb. 5.06 • —

E

Echinacea root, bls. ....lb. 1.25 • —
Elm bark, grinding, bls. ....lb. .30 • .32
Powd., bbls., bxs. ....lb. .50 • .55
Select, bundles ....lb. .75 • —
Emetine hydrochloride, USP, bots. oz.48.40 • —
Endrin, tech., dms., 100-lbs. or more, 100% basis, dlvd. lb. 2.70 • —
Eosin red toner, bbls., works....lb. 1.85 • —
Ephedrine, syn., USP, anhyd., bots. 100-oz. lots oz. .88 - 1.00
hydrous bots. 100-oz. lots oz. .92 • —
Ephedrine hydrochloride, NF, dms., 100-oz. f.o.b. works oz. .72 • —
Ephedrine sulfate, USP, cryst., dms., 100-oz. f.o.b. works oz. .73 • —
USP, powd., dms., 100-oz., same basis oz. .73 • —
Epichlorohydrin, dms., c.l., dlvd. lb. .29½- —
dms., l.c.l., dlvd. ....lb. .31 • —
tanks, dlvd. ....lb. .27 • —
Epsom salt (see Magnesium sulfate).
l-Epinephrine base, syn., USP, bots., 100 gram. lots..gram. .58 • —
Erigeron oil, cns. ....lb.11.00 • —
Ergot, NF, dms., tin-lined ....lb. 1.00 - 1.25
Eserine salicylate, bots. ....oz.44.00 • —
Eserine sulfate, bots. ....oz.86.00 • —
Ester gum, gum-rosin type, dms., c.l., dlvd., Ill., Md., Ky., E. States, Minneapolis, N. C., Ohio, St. Louis, St. Paul, Va., W. Va lb. .18½- —
Wood-rosin type, dms., c.l., same basis lb. .18½- —
Ether (see specific product).
Ethyl acetate, nat., ferment. 85-88%, dms., c.l., dlvd lb. .15 • —
dms., l.c.l., dlvd. ....lb. .16½- —
tanks, dlvd. ....lb. .12½- —
85-98%, dms., c.l., dlvd. ..lb. .15¼- —
dms., l.c.l., dlvd. ....lb. .16¾- —
tanks, dlvd. ....lb. .12¾- —
99%, dms., c.l., dlvd. ....lb. .15½- —
dms., l.c.l., dlvd. ....lb. .17 • —
tanks, dlvd. ....lb. .13 • —
Syn., 85-88%, dms., c.l., dlvd. lb. .15 • —
dms., l.c.l., dlvd. ....lb. .16½- —
tanks, dlvd. ....lb. .12½- —
95-98%, dms., c.l., dlvd. ....lb. .15¼- —
dms., l.c.l., dlvd. ....lb. .16¾- —
tanks, dlvd. ....lb. .12¾- —
99%, dms., c.l., dlvd. ....lb. .15½- —
dms., l.c.l., dlvd. ....lb. .17 • —
tanks, dlvd. ....lb. .13 • —
Ethyl acetoacetate, dms., c.l., dlvd. lb. .58½- —
dms., l.c.l., dlvd. ....lb. .60 • —
tanks, dlvd. ....lb. .56 • —
Ethyl acrylate, dms., c.l., t.l., dlvd. lb. .36 • —
dms., l.t.l., dlvd. ....lb. .37 • —
tanks, dlvd. ....lb. .34 • —
Ethyl alcohol, 190 pf., USP, tax paid dms, c.l., dlvd. E. of Rockies gal.20.63 • —
dms., l.c.l., same basis gal.20.68 -20.74
Ethyl alcohol, 190 pf., USP, tax-free, dms., c.l., dlvd. E. of Rockies gal. .68 • —
dms., l.c.l., same basis gal. .73 • .79
tanks, same basis....gal. .52 • —
Ethyl alcohol, absolute, 200 pf., tax paid, dms., dlvd. E. of Rockies gal.21.75 • —
dms., l.c.l., same basis gal.21.80 -21.86
tanks, same basis....gal.21.59 • —

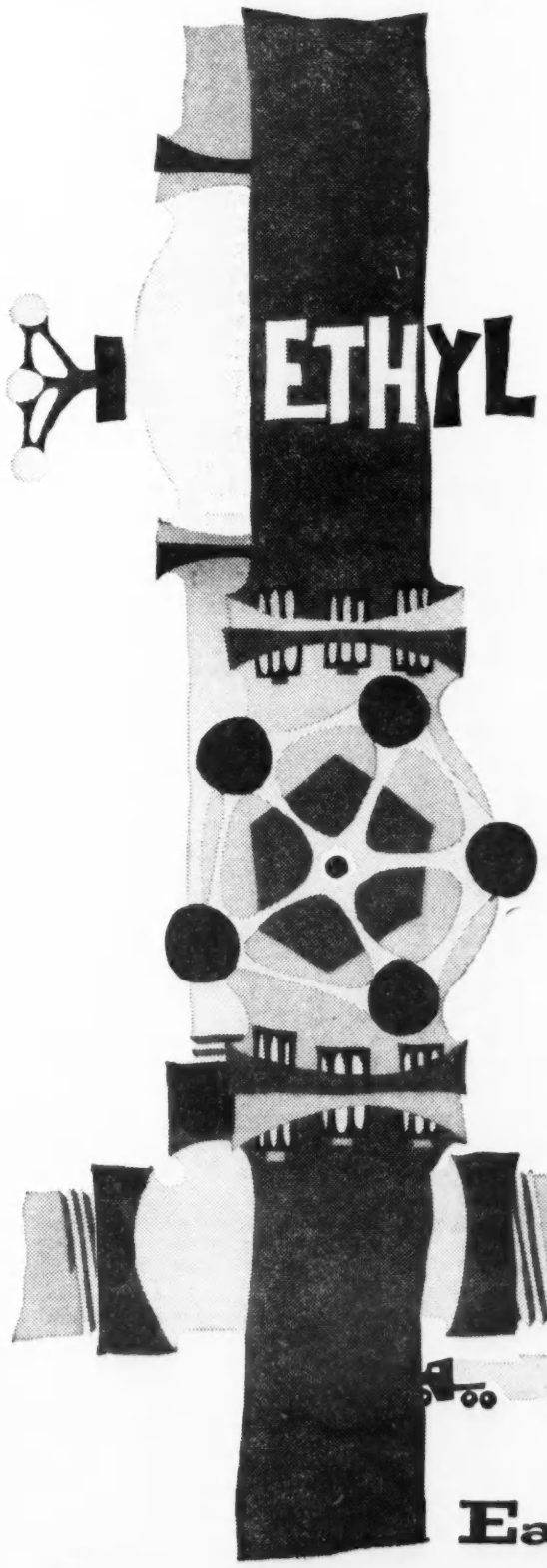
Ethyl alcohol, denatured (see Denatured alcohol, ethyl).
Ethyl aminobenzoate, USP (see Benzocaine).
Ethyl amyl ketone, dms., c.l., dlvd. lb. .20 - —
dms., l.c.l., same basis lb. .21½- —
tanks, same basis lb. .17½- —
Ethyl benzoate, bots. lb. .75 - 1.00
Ethyl bromide tech., 98%, dms., c.l., frt. alld. E lb. .43 - —
dms., l.c.l., frt. alld. E lb. .45 - —
tanks, frt. alld. E. lb. .41 - —
Ethyl butyl ketone, dms., c.l., t.l., works lb. .36 - —
dms., l.c.l., t.l., works lb. .36¾- —
tanks, works lb .34 —
Ethyl butyrate, dms., works lb. .85 - 1.00
Ethyl carbamate (see Urethane).
Ethyl cellulose, vis. 7 cps., bgs., 5,000-lb. lots or more, frt. alld. E lb. .73 - —
bgs., smaller lots, frt. alld E lb. 75 - —
Vis. 10, 20, 50, 100, 150 cps., bgs., 5,000-lb. lots or more, frt. alld. E lb. .68 - —
bgs., smaller lots, frt. alld. E lb. .70 - —
Ethyl chloride, tech., cyls., works. lb. .20 - .22
dms., works lb. .18 - .20
tanks, works lb. .10 - —
Ethyl cinnamate, cns. lb. 3.35 3.50
Ethyl ethanolamines, mixed, dms., c.l., dlvd E lb. .43½- —
dms., l.c.l., dlvd. E lb. .44½- —
tanks, dlvd. E lb. .41½- —
Ethyl ether, absolute, ACS, dms lb. .27 - —
Anesthesia, USP, dealers, 1-lb. cns. lb. 1.01 - —
½-lb. cns. lb 1.09 - —
¼-lb cns. lb. 1.21 - —
Indust., dms., c.l., dlvd. lb. .13½- —
dms., l.c.l., dlvd E lb. .15 - —
tanks, dlvd E. lb. .11 - —
2-Ethyl hexoic acid, dms., c.l., t.l., dlvd. E lb. .37 - —
dms., l.c.l., t.l., dlvd. E. lb. .38½- —
tanks, dlvd. E lb. 34½- —
2-Ethyl hexoic acid, 1c. higher W. of Rockies.
2-Ethylhexyl acrylate, c.l. or t.l., straight or mixed frt. alld. E lb. .42½- —
dms., t.t.l., same basis lb. .43½- —
tanks, same basis lb. .40 - —
Prices of 2-ethylhexyl acrylate are 1½c. per lb. higher in Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
2-Ethylhexyl alcohol, dms c.l., dlvd. lb. .23¾- —
dms., l.c.l., dlvd. lb. .25¼- —
tanks, dlvd. lb. .21¼- —
Ethyl iodide, cbys., works lb. 3.30 - —
Ethyl methacrylate, dms., c.l., frt. equald lb. .52 - —
dms., t.t.l. frt. equald. lb. .52½- —
tanks, frt. equald. lb. .50 - —
Ethyl morphine hydrochloride, USP, bots oz. 11.85 —
Ethyl oenanthate, dms lb. 1.05 - 1.30
Ethyl oxalate (see Diethyl oxalate).
Ethyl silicate, dist. (see Tetraethyl orthosilicate).
Ethyl silicate, 40% available, SiO_2, dms., c.l., dlvd lb. .44½- —
dms., l.c.l. dlvd. lb. .46 - —
tanks, dlvd. lb. .42 - —
N-Ethyl-a-naphthylamine, dms., works. lb 1.02 - —
N-Ethyl-m-toluidine, tech., liq., tanks, frt. alld lb. .83 - —
4-Ethyl-o-toluidide, bbls. lb. .88 - —
Ethylamine (see Mono-, Di-, or Tri-).
N-Ethylaniline, dms., c.l., frt. alld. lb. .57 - —
dms., l.c.l., frt. alld. lb. .58 - —
tanks, frt. alld. lb. .55 - —
Ethylbenzene 99% dms., c.l. or t.l., frt. equald lb. .15 - —
dms., l.c.l., same basis lb. .17 - —
tanks, same basis lb. .12½- —
2-Ethylbutyl alcohol, dms., c.l., works lb. .30 - —
dms., l.c.l., works lb. .30¾- —
tanks, works lb. .28 - —
Ethylene, contract, ref'y, gate lb. .0475- .0525
Ethylene dibromide, dms., c.l., frt. equald lb. .30½- —
dms., l.c.l. frt. equald. lb. .31½- —
tanks, frt. equald lb. .28½- —
Ethylene dichloride, dms., c.l., dlvd. lb. .11¼- —
dms., l.c.l., same basis lb. .13 - —
tanks, same basis lb. .09 - —
Ethylene dichloride prices W. of Rockies, 1c. per lb. higher.
Ethylene glycol, indust., dms., c.l., dlvd. E lb. .16 - —
dms., l.c.l., same basis lb. .17½- —
tanks, same basis lb. .13½- —
Ethylene glycol monobutyl ether, dms., c.l., dlvd. E lb. .22 - —
dms., l.c.l., dlvd. E lb. .23½- —
tanks, dlvd E. lb. .19½- —
Ethylene glycol monoethyl ether, dms., c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E lb. .22½- —
tanks, dlvd. E lb. .18½- —
Ethylene glycol monoethyl ether acetate, dms., c.l., dlvd. E lb. .19½- —
dms., l.c.l., dlvd. E. lb. .20½- —
tanks dlvd., E lb. .17 - —
Ethylene glycol monomethyl ether, dms. c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E lb. .22½- —
tanks, dlvd. E. lb. .18½- —
Ethylene glycol monomethyl ether acetate dms., c.l., dlvd. E lb. .29 - —
dms., l.c.l., dlvd. E. lb. .29¾- —
tanks, dlvd E. lb. .27 - —
Ethylene glycol monostearate, triple pressed, dms lb. .33 - .35
Ethylene oxide, dms. c.l., dlvd E. lb. .21½- —
dms., l.c.l., dlvd. E. lb. .24½- —
tanks, dlvd. E. lb. .15½- —
Ethylene trichloride (see Trichloroethylene).
Ethylenediamine, 85-88%, dms., c.l., dlvd. E., 100% basis lb. .42 - —
dms., l.c.l., dlvd. E., 100% basis. lb. .43 - —
tanks, dlvd. E., 100% basis lb. .40 - —
Ethylvanillin, 100-lb. fib. dms., 500-lb. lots and over lb. 6.75 - —
200-lb. lots and over lb. 7.00 - —
100-lb. lots and smaller lb. 7.30 - 7.40
Eucalyptol, USP, cns., dms lb. .85 - 1.40
Eucalyptus oil, NF, rectified, 70-75%, dms lb. .50 - .58
NF, rectified, 80-85%, dms. lb. .58 - .85
Eugenol, tech., dms. lb. 1.45 - —
USP, dms. lb. 2.10 - 2.80
Euphorbia herb, bls. lb. .12 - .15

F

F salt, paste, tech., dms., works lb. 2.30 - —
Feldspar, 140-200 mesh, bulk, c.l., works ton. 19.50 - —
Feldspar in bags $3 per ton higher
Fennel oil, sweet, USP, cns. lb. 2.25 - 2.70
Fennel seed, Argentine, bgs. lb. .14 - —
French, light, bgs lb. .20 - —
Indian, light, bgs. lb. .17 - —
Rumanian, bgs. lb. .14 - —
Yugoslav, light, bgs lb. .16½- —
Fenugreek seed, Moroccan, bgs lb. .07½- —
Ferric chloride, anhyd., tech., dms., c.l., works 100 lbs. 7.50 - —
dms, l.c.l., works 100 lbs. 8.50 - —
Indust., cryst., bnls., c.l., works. 100 lbs. 5.25 - 6.75
bbls., l.c.l., works 100 lbs. 5.75 - 7.25
42°Be., photo grade, cbys., c.l., works 100 lbs. 7.25 - 8.25
sewage grade, tanks, frt. equald. 100% oasis 100 lbs. 4.00 - —
USP, cryst., dms., t.l., works lb. .08½- —
Ferric citrate, gran., dms lb. .86 - —
Ferric hypophosphite NF, dms lb. 3.45 - —
Ferric naphthenate, liq., 6% Fe, dms. frt alld lb. .26¼- —
Ferric oxalate, tech., gran., 50-lb. dm. f.o.b works E lb. .89 - —
Ferric oxides (see Iron oxides).
Ferric phosphate, NF, soluble gran pearls, cs lb. .72 - .75
Ferric pyrophosphate, NF VII, soluble, gran., pearls, dms. lb. .72 - —
Ferric resinate 6¾% Fe, dms., ton, lots, frt. alld lb. .40¼- —
Ferric stearate, dms., c.l., frt. alld. lb. .39 - —
dms., l.c.l., frt. alld. lb. .40 - .44

Ferric sulfate, partly hydrated, bgs., c.l. works ton. 35.25 - —
bgs., l.c.l., works ton. 36.25 - 42.25
bulk, c.l., works ton. 33.25 —
Ferric-ammonium citrate, brown, pearls, NF, gran., dms lb. .65 - .68
Green, pearls, USP XII, gran., dms lb. .66 - .69
Ferric-ammonium oxalate, fine gran., dms lb. .27½- .29½
Ferric-potassium oxalate, fine gran., dms lb. .32½- .34½
Ferric-sodium oxalate, fine gran., dms lb. .27½- .29½
Ferrous gluconate, USP, 200-lb. dm., frt. equald lb. 96 - —
Ferrous sulfate, gran., bgs., c.l., works ton. 34.50 - —
bgs., l.c.l., dlvd. Metropolitan area, 100 lbs 3.35 4.25
bbls., c.l., works ton. 40.00 - —
bulk, c.l., works ton. 27.00 - —
USP, cryst., bbls., dms. lb 09½- .10
Fir balsam, Canada, bbls. gal. 32.00 - 35.00
Oregon, bbls. gal. 3.40 - 4.64
Fir oil, Canada, cns lb. 1.75 - 2.50
Fish oil, refd., alkali, dms lb. .1300- .1350
Kettle-bodied, dms. lb. .1530- .1580
Light-pressed, dms. lb. .1150- .1200
tanks lb. .10 - —
Fishliver oil, nat., high potency, 100,000 to 1,500,000 A units per gram, dms 1,000,000 units. .12 - —

Fishmeal, dom., menhaden, 60% protein, grd., bgs., Atlantic and Gulf coasts ton. 105.00 - —
Fishscrap, dom., menhaden, dried, 60% protein, grd., bgs., Atlantic and Gulf coasts ton. 101.00 - —
Fleaseed (see Psyllium seed)
Folic acid, USP, bots, fib dms., kilo lots or more gram .30 .44
10% feed grade fib dms., 3 kilos or more kilo. 30.00 - 44.00
37% (inhibited 12 to 15% methanol), USP, dms., c.l., dlvd. lb. .0695- —
tanks, dlvd lb. .0405- —
Formaldehyde, 37% (inhibited 12 to 15% methanol), USP, dms., c.l., dlvd lb. .0695- —
tanks, dlvd lb. .0430- —
Formaldehyde, methanol-free (uninhibited) tanks, dlvd lb. .0375- —
Formic acid 85% cbys. c.l., works. lb. .1570- —
cbys., l.c.l., works lb. .1620- .1720
90%, cbys., c.l., works lb. .1625- —
cbys., l.c.l., works lb. .1675- .1775
Fringetree bark, bls lb. .65 - .70
Fumaric acid, tech., 250-lb. dms., c.l., frt. equald lb. .22¾- —
dms., l.c.l., frt. equald. lb. .24¼- —
Furfural, dms., c.l. works lb. .13 - —
dms., l.c.l., works lb. .14 - —
tanks, dlvd E. lb. .12 - —
tanks, dlvd. W. lb. .13 - —



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95%
SDA
Tecsol®

When you need ethyl alcohol...in any quantity, any grade...check with Eastman first, a primary producer. Eastman's manufacturing and distribution facilities teamed with its network of distributors are geared to meet your drum or bulk receiving schedule quickly, efficiently. Choose from a wide range of grades: anhydrous, 95%, specially denatured formulas and four proprietary (Tecsol®) solvents.
Tecsol is available in principal industrial centers for immediate shipment in drum or bulk through Eastman Chemical Products, Inc.,[1] or its distributors.[2] Write or phone the office nearest you for specifications and shipping data.

[1] Longview, Texas
Lodi, New Jersey
Kingsport, Tennessee

[2] Name of distributor in your area sent upon request.

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KINGSPORT, TENNESSEE, subsidiary of Eastman Kodak Company

SALES OFFICES: Eastman Chemical Products, Inc. Kingsport, Tennessee; Atlanta; Chicago; Cincinnati; Cleveland; Dallas; Framingham, Mass.; Greensboro, N. C.; Houston; New York City; St. Louis. **West Coast: Wilson Meyer Co.,** San Francisco; Los Angeles; Portland; Salt Lake City; Seattle.

Furfuryl alcohol, cns., works	lb.	.28 -	—
dms., c.l., t.l., Newark, N. J.	lb.	.20½-	—
dms., l.c.l., l.t.l., Newark, N. J	lb.	.21½-	—
dms., c.l., t.l., Memphis, Tenn	lb.	.19 -	—
dms., l.c.l., l.t.l., Memphis, Tenn.	lb.	.20 -	—
tanks, Memphis, Tenn	lb.	.175 -	—
Fusel oil, ref'd, dms., c.l., dlvd	lb	.18 -	—
dms., l.c.l., dlvd	lb	.19½-	—
tanks, dlvd.	lb.	.15½-	—

G

G salt, bbls, frt alld, 100% basis	lb.	73 -	—
Gallic acid, NF VII, bbls, 1,000-lb lots	lb	2.00 -	—
bbls, smaller lots	lb	2.02* -	2.22
Tech., bbls., 1,000-lb. lots	lb.	1.78 -	—
bbls, smaller lots	lb	1.80 -	2.00
Gamma acid, dry grd., bbls., frt alld	lb.	1.75 -	—
Gammapicoline (see g-picoline).			
Garlic oil, dom, bots.	oz	4.75 -	6.05
Imp, bots.	oz	4.50 -	5.00
Gaultheria oil (see Wintergreen oil).			
Gelatin, edible, 75 AOAC test, bbls., c.l., dlvd	lb.	.55 -	—
150 AOAC test, bbls., c.l., dlvd.	lb.	.64 -	—
200 AOAC test, bbls., c.l., dlvd.	lb.	.70 -	—
225 AOAC test, bbls., c.l., dlvd.	lb.	.74 -	—
275 AOAC test, bbls., c.l., dlvd.	lb.	.82 -	—
Gelsemium root, bls.	lb.	.30 -	.35
Gentian root, bls.	lb.	.24 -	—
Grd., bbls., bxs.	lb.	.30 -	—
Powd., bbls, bxs.	lb	.30 -	—
Geraniol, extra, cns., dms.	lb.	2.00 -	2.50
Soap grade, dms.	lb.	1.05 -	1.25
Standard, cns., dms.	lb.	1.75 -	2.25
Geranium oil, Algerian, cns.	lb.	19.00 -	—
Bourbon, cns.	lb.	23.00 -	26.00
Geranium oil, Turkish (see Palmarosa oil).			
Geranyl acetate, cns.	lb.	1.90	2.70
Ginger oil, dist., bots.	lb.	11.50 -	14.00
Ginger oleoresin, NF from African root, bots	lb.	4.25 -	5.00
NF, from Jamaican root, bots.	lb.	7.75 -	—
Ginger root, Cochin, bgs.	lb.	.25 -	—
Jamaican, No. 3, bgs.	lb.	.30 -	—
Nigerian, split, bgs.	lb.	.15 -	—
Sierra Leone, bgs.	lb.	.21 -	—
Glauber's salt (see Sodium sulfate).			
Gluconic acid, tech., 50% dms., c.l., t.l., frt. alld	lb.	.18 -	—
dms. l.c.l., frt. alld.	lb.	.20½-	—
tanks, frt. alld.	lb.	.13½-	—
Glue, bone, extracted, dry bone, 86 jellygrams, bgs c.l., dlvd.	lb.	.16 -	—
131 jellygrams, bgs., c.l., same basis	lb.	.16½-	—
164 jellygrams, bgs., c.l., same basis	lb.	.18½-	—
191 jellygrams, bgs., c.l., same basis	lb.	.19½-	—
222 jellygrams, bgs., c.l., same basis	lb.	.21 -	—
Glue, bone, green, 40 jellygrams, bgs., c.l., same basis	lb.	.16-	—
86 jellygrams, bgs., c.l., same basis	lb.	.16 -	—
115 jellygrams, bgs., c.l., same basis	lb.	.16½-	—
135 jellygrams, bgs., c.l., same basis	lb.	.17½-	—
164 jellygrams, bgs., c.l., same basis	lb.	.18½-	—
180 jellygrams, bgs., c.l., same basis	lb.	.19½-	—
200 jellygrams, bgs., c.l., same basis	lb.	.20½-	—
Bone glue, l.c.l., prices 2c. higher.			
Glue, hide, 70-94 jellygrams, bgs., c.l., dlvd.	lb.	.18 -	—
95-149, bgs., c.l., dlvd.	lb.	.19 -	—
122-149, bgs., c.l., dlvd.	lb.	.20½-	—
150-177, bgs., c.l., dlvd.	lb.	.22½-	—
178-206, bgs., c.l., dlvd.	lb.	.25 -	—
207-236, bgs., c.l., dlvd.	lb.	.28 -	—
237-266, bgs., c.l., dlvd.	lb.	.30½-	—
267-298, bgs., c.l., dlvd.	lb.	.32½-	—
299-330, bgs., c.l., dlvd.	lb.	.34½-	—
331-362, bgs., c.l., dlvd.	lb.	.36½-	—
363-394, bgs., c.l., dlvd.	lb.	.38 -	—
395-427, bgs., c.l., dlvd.	lb.	.40 -	—
428-460, bgs., c.l., dlvd.	lb.	.42 -	—
461-494, bgs., c.l., dlvd.	lb.	.44 -	—
495-529, bgs., c.l., dlvd.	lb.	.46 -	—
Hide glue l.c.l. prices 2c higher.			
l-Glutamic acid, 99½% fib. dms., 100-lb lots, frt alld	lb.	1.80 -	—
fib. dms., 25-lb. lots, frt. alld.	lb.	1.88 -	—
l-Glutamine, bots., 1-9 kilo lots,	kilo.	150.00	300.00
Bots., 50-kilo lots	kilo.	100.00 -	—
Bots., 500-kilo lots	kilo.	75.00 -	—
Glycerine, dom., nat., crude, saponification, 88%, tanks, dlvd	lb.	.21½-	.21¾
nat. crude soapiye 80% tanks, dlvd	lb.	.19 -	.19¾
nat., refd., USP, CP, 99%, dms., c.l., dlvd	lb.	.30⅞-	—
dms., l.c.l., dlvd	lb.	.31⅛-	—
tanks, dlvd.	lb.	.29⅛-	—
nat., refd., USP, CP, 96%, dms., c.l., dlvd	lb.	.30 -	—
dms., l.c.l., dlvd	lb.	.30¾-	—
tanks, dlvd.	lb.	.28¼-	—
nat., high gravity, dms., c.l., dlvd.	lb.	.30¾-	—
dms., l.c.l., dlvd	lb.	.31½-	—
tanks, dlvd	lb.	.29 -	—
syn., dms., c.l., dlvd	lb.	.31 -	—
dms., l.c.l., dlvd	lb.	.31¾-	—
tanks, dlvd.	lb.	.29¼-	—
Imp. nat., crude, soapiye, 80%, c.i.f.	lb.	.19	Nom.
Glycine (see Aminoacetic acid).			
Glycerol (see Glycerine).			
Glycolic acid (see Hydroxyacetic acid).			
Glycolonitrile, 70% aqueous, dms., c.l., t.l., works	lb.	.40 -	—
dms., l.c.l., same basis	lb.	.42 -	—
tanks, same basis	lb.	.39 -	—
Glyoxal, 30%, dms., c.l., works	lb	.20½-	—
dms., l.c.l. works	lb.	.21¼-	—
tanks works	lb.	.18 -	—
Golden seal root, NF, tested, bls.	lb.	2.75 -	3.25
Gramicidin, 1 to 5 kilos, f.o.b. works.	gram	4.70	—
Grapefruit oil, dms	lb.	2.50 -	2.70
Graphite, amorp, powd., bgs., fib. dms., ex whse	lb.	.08 -	.09⅛
Cryst., 88-90%, powd., bgs., fib. dms ex whse	lb.	.19 -	.21½
90-92%, powd., bgs., fib. dms., ex whse	lb.	.21 -	.24½
95-97%, powd., bgs., fib. dms., ex-whse	lb.	.29 -	.31½
Flake, No. 1, 90-95%, bgs., fib. dms., ex whse	lb.	.29 -	.31
No. 2, 90-95% bgs., fib. dms., ex whse	lb.	.29 -	.31
Grease, white, choice all hog, tanks, dlvd	lb.	.06¾-	.06⅞
Yellow, tanks, dlvd.	lb.	.05½-	.05⅝
Grease oil, No. 1, dms., c.l.	lb.	.13¾	Nom.
dms., l.c.l.	lb.	.14¾	Nom.
Extra winter, strained, dms. c.l.	lb.	.16¼	Nom.
dms., l.c.l.		.17¼	Nom.
Prime, burning, dms., c.l.	lb.	.17¾	Nom.
dms., l.c.l.	lb.	.18¾	Nom.

GREEN PIGMENTS
Green pigment quotations are listed individually. For example, prices on Green, chrome, may be found in the C's under Chrome green.

Grindelia robusta herb, bls	lb.	.40 -	—
Guaiacol, NF, cryst., dms., tins	lb.	2.10 -	2.15
NF, liq., cbys., dms	lb	2.30	2.40
Guaiacol carbonate NF VII, dms.	lb	3.40	3.45
Guaiacwood oil, cns	lb.	75 -	1.30
Guar gum, food grade bgs., c.l.	lb.	.38 -	—
bgs., 5,000 lbs. or more	lb.	.39 -	—
Indust., bgs., c.l.	lb.	.32 -	—
Tech. grade, bgs.	lb.	.30	.33

GUMS
Gum quotations are listed individually. For example, prices on Gum, Dammar, may be found in the D's under Dammar gum.

Gypsum, plaster of Paris, 100-lb. paper bgs., trucks, dlvd. New York	ton.	20.30 -	—
Terra alba, dom., 100-lb. paper bgs., trucks, same basis	ton.	20.00 -	—
100-lb. paper bgs., trucks, works, New York	ton.	17.00 -	—
Terra alba, imp., English, 100-lb. paper bgs., l.c.l., ex dock, New York	ton.	55.00 -	—
100-lb paper bgs., ex whse.	ton.	60.00	62.00

H

H acid, dry, bbls., c.l., frt. alld., 100% basis	lb.	.90 -	—
bbls., l.c.l. same basis	lb.	.95 -	—
Hansa yellow 10 G, bbls., dlvd. E. of Rockies	lb.	2.45 -	—
Hansa G yellow, pigment, bbls	lb.	2.20 -	—
Hawthorn berries, bgs.	lb.	.18 -	20
Heliotropin, 100-lb. lots, dms.	lb.	2.60 -	3.40
Hellebore root, dom, green, bls	lb.	70 -	.75
Helonias root, bls.	lb.	1.50 -	—
Hemlock oil, cns	lb.	2.55 -	3.00
Henbane leaves, bls.	lb.	.35 -	.40
Heptachlor, dms., c.l., t.l., frt. alld., 100% basis	lb.	.96 -	—
Heptane, industrial, tankcars, New Jersey and New York,	gal.	.20 -	—
Houston, Texas	gal.	.1625-	—
Hesperidin, purif, 100-lb. fib. dms., f.o.b., works	lb.	8.95 -	—
Hesperidin methylchalcone, bots., 50-lb. lots, works	lb.	22.50 -	—
bots., 5-lb. lots, works	lb.	23.00 -	—
bots., 1-lb lots, works	lb.	23.50 -	—
Hexachloropnene, dms., 1,100 lbs., or more	lb.	1.84 -	—
dms., to 1,100 lbs.	lb.	1.94 -	—
Hexalin (see Cyclohexanol).			
Hexamethylenetetramine, tech. bgs., 20,000-lb lots or more, Perth Amboy or New York City	lb.	.233 -	—
bgs., 1,000-19,999-lb. lots, same basis	lb.	.243 -	—
bgs. smaller lots same basis.	lb.	.253 -	—
fib. dms., 1,000-lb. lots or more, same basis	lb.	.250 -	—
fib. dms., smaller lots, same basis	lb.	.253 -	—
USP, bgs., 500 lbs. or more, f.o.b. Fords, N. J., dlvd. New York City and Philadelphia	lb.	.42½-	—
bgs., smaller lots, same basis	lb.	.43½-	.48⅛

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New Cold Caustic Bleach Process

Looking for a way to use greater amounts of low-cost, more plentiful pulp—without capital investment for bleach equipment? Then let a Becco Sales Engineer show you our new technique* which allows you to bleach in the same equipment regularly used for the manufacture of cold caustic pulp.

In this new process, peroxide bleach liquor is added at the Bauer Refiner, and bleaching occurs during the refining operation. Bleach response depends on refiner densities.

Up to 20 points brightness increase has been obtained in commercial operations to date, and with no additional steam costs, no holding time, and no excessive chemical costs.

Becco can assist you immediately in setting up a production run and evaluating results. First step: use the coupon to let us know you're interested.

*—Patent Pending

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Problems in handling Hydrogen Peroxide

?

Becco's Four-Fold Engineering Service Program—offered free—includes:

1. Comprehensive survey of your facilities.
2. Specific proposal with recommendation of proved equipment and where it is obtainable.
3. Installation supervision by Becco.
4. Periodic inspection and permanent service.

Can you use this free Becco help, based on more years of experience with bulk handling of H_2O_2 than any other manufacturer? Use the coupon to let us know.

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Dept. OPDR-B

Gentlemen:
Please tell me more about your Four-Fold Engineering Service.

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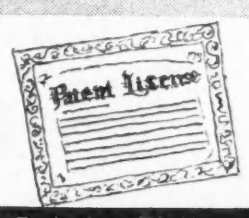
CITY_____
ZONE____ STATE_____



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Well, perhaps there's a little more to your gaining use of Becco patents than just mailing your dollar in, but not much more. And certainly, no more money. The $1.00 really does cover it.

Becco has lots of patents, granted as a result of innovations in the use of Hydrogen Peroxide and other Peroxygen chemicals developed in Becco's Research Laboratories. But they don't do us a whole lot of good locked tightly in our safe. So, we long ago adopted the following policy:

If one of our patents can help you, we'll be glad to license the rights to you perpetually, for just one dollar. You get a nice certificate, incidentally, to cover the legalities, but more important—you also get free our complete engineering help in setting up your process, handling the material, maintenance, etc., etc.

What do we get? You as a customer—we hope—but there's no obligation on your part. Just seems to work out that way, though—when we know enough about a particular peroxygen to hold a patent on its use, chances are we've also learned enough to produce it purer than anyone else. You benefit from this; we do, too.

Use the coupon below to ask for a Sales Engineer—or our list of patents—that may help you solve an important problem.

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- ☐ Hydrogen Peroxide
- ☐ Peroxygen Chemicals
- ☐ Persulfate Chemicals
- ☐ Please have a Sales Engineer call.

NAME_____
FIRM_____
ADDRESS_____
CITY_____
ZONE____ STATE_____

Hexane, industrial, tankcars, New Jersey and New York, gal.	.20	•	—
Houston, Texas ..... gal.	.16	•	—
1-Hexanol dms., c.l., works ..... lb.	.35	•	—
dms., l.c.l. works ..... lb.	.35¾	•	—
tanks, works ..... lb.	.33	•	—
Hexyl cinnamic aldehyde, dms. lb.	4.00	•	7.50
n-Hexyl methacrylate, dms., c.l., works lb.	.75½	•	—
dms. l.c.l., works ..... lb.	.76	•	—
Hexyl salicylate, dms. ..... lb.	1.75	•	—
Hexylene glycol, dms., c.l., dlvd lb.	.17½	•	—
dms., l.c.l. dlvd ..... lb.	.19	•	—
tanks, dlvd. ..... lb.	.13	•	—
Hexylresorcinol, USP dms., 25-lb. lots or more, dlvd lb.	14.00	•	—
dms. smaller lots dlvd. .. lb.	14.50	•	—
Homatropine hydrobromide, USP, bots oz.	3.25	•	—
Homatropine methylbromide, USP, bots oz.	3.25	•	—
Hoofmeal, 17-18% ammonia, bulk, c.l., Chicago unit-ton	6.75	•	—
Horehound herb, bls. ..... lb.	.18	•	.20
Hydrastis (see Goldenseal).			
Hydrazine hydrate, 85% ret. dms., works lb.	1.35		1.55
100% ret. dms., works lb	1.60		1.90
Hydriodic acid, purif., 47%, 2-cbys., f.o.b. works lb.	2.92	•	—
Hydroabietyl alcohol, tech., solid, dms. c.l., dlvd. zone 1 lb.	29¼	•	—
dms. l.c.l. dlvd zone 1 lb.	29¾	•	.30¼
tanks dlvd zone 1 lb.	27¼	•	—
Zone 1 for hydroabietyl alcohol comprises all of continental US except Ariz., Calif., Colo., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo. and the western part of Texas.			
Hydrobromic acid, medicinal, 48%, cbys. frt. equald lb.	.48	•	.58
Hydrochloric acid, anhyd (see Hydrogen chloride)			
Hydrochloric acid, 18°, cbys., c.l., works 100 lbs.	2.50	•	—
cbys. l.c.l. dlvd. Metropolitan area 100 lbs.	2.90		3.05
tanks works frt. equald ton	28.00	•	—
20°, cbys., c.l., works 100 lbs.	2.75	•	—
cbys. l.c.l. dlvd Metropolitan area 100-lbs	3.15	•	—
tanks works frt. equald ton	30.00	•	—
22°, cbys., c.l., works 100 lbs.	3.25	•	—
cbys. l.c.l. dlvd Metropolitan area 100 lbs	3.65	•	—
tanks works frt. equald ton	35.00	•	—
CP, USP, consumers cbys., extra, c.l., works lb.	15¾	•	—
cbys. l.c.l. same basis lb.	.17¼	•	.17¾
Hydrochloric acid, 5-pint bots., extra cs. c.l. same basis lb.	.20¾	•	—
Hydrocortisone acetate bulk bots., kilo lots or more gram.	1.10	•	1.90
Hydrocortisone alcohol bulk bots., kilo lots or more gram.	1.10	•	1.90
Hydrocyanic acid, dilute, NF, 2%, 5-pt. bots., f.o.b. works pt.	.70	•	—
Hydrofluoric acid, anhyd. (see Hydrogen fluoride)			
Hydrofluoric acid, aqueous, 70%, 55-gal. or 30-gal. dms., c.l., t.l., dlvd 100 lbs.	19.25	•	—
55-gal. dms., l.c.l., t.l.l., dlvd. 100 lbs.	20.75	•	—
20-gal. dms., c.l., t.l., dlvd. 100 lbs.	21.00	•	—
20-gal. dms., l.c.l., t.l.l., dlvd 100 lbs.	22.50	•	—
tanks, works, frt. equald. 100 lbs.	13.40	•	—
Delivered prices apply to all states east of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington and Wyoming. In those states add $2.70 per cwt. for group delivery.			
Hydrofluosilicic acid, dms., works, 30% basis lb.	.06	•	—
Hydrofuramide, dms., fib. ctns., works lb.	.30	•	.40
50-lb. cyls., l.c.l., works ..... lb.	.55	•	.60
Hydrogen chloride, anhyd., 50-lb. cyls., l.c.l., works lb.	.45	•	—
Hydrogen cyanide, liq., 98%, tanks, works lb.	.14	•	—
Hydrogen fluoride, anhyd., cyls., dlvd. E lb.	.30½	•	.32½
cyls. dlvd. W. ..... lb.	.39	•	—
tanks, works ..... lb.	.18	•	—
Hydrogen peroxide 35%, dms., c.l., dlvd lb.	.202	•	—
dms., l.c.l., dlvd. ..... lb.	.211	•	—
tanks, dlvd. ..... lb.	.1800	•	—
Hydroquinone, photo grade, dms., 50-lbs., f.o.b. works lb.	1.10	•	—
Tech., dms., c.l., dlvd. ..... lb.	.82½	•	—
dms., l.c.l. dlvd. ..... lb.	.84½	•	—
Hydroquinone monomethyl ether, dms., t.l., dlvd. ..... lb.	2.59	•	—
dms., l.c.l., dlvd. ..... lb.	2.61	•	—
Hydroxyacetic acid, tech., 70%, dms., Philadelphia and Chicago lb.	.11	•	—
tanks, Belle, W. Va. ..... lb.	.073	•	—
Hydroxycitronellol, cns. ..... lb.	4.85	•	5.75
Hydroxyethyl cellulose, all grades, fib. dms., 20,000-lb lots or more, f.o.b. shipping point lb.	.84	•	—
fib. dms., 2,000 to 19,999-lb. lots, same basis lb.	.89	•	—
fib. dms., 100 to 1,999-lb. lots, same basis lb.	.93	•	—
fib dms., smaller lots, same basis lb.	1.03	•	—
Hyoscine salts (see Scopolamine)			
Hyoscyamine hydrobromide, bots oz.	7.00	•	—
Hyoscyamine sulfate, bots. ..... oz.	7.00	•	—
Hypophosphorous acid, purif., 50%, 10-cbys., f.o.b. works lb.	1.95	•	—
NF, 50%, 10-cbys., same basis lb.	1.35	•	—

I

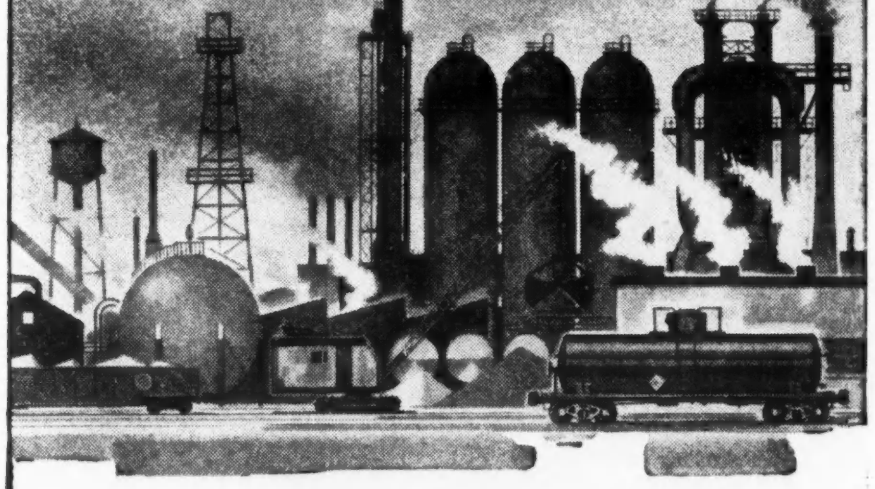
Ichthammol, NF, dms. ..... lb.	.75	•	1.05
Indigo (see Dyes coaltar, 1171 Indigo, syn).			
Indole, CP, bots ..... lb.	14.75	•	18.25
Inositol, bots., dlvd. ..... lb.	5.00	•	—
dms., dlvd. ..... lb.	4.50	•	4.75
Insect flowers (see Pyrethrum).			
Iodine, crude, kgs. ..... lb.	.95	•	—
Resub., USP, dms., f.o.b. works lb.	2.00	•	2.02
Iodochlorohydroquinolin, USP, dms. lb.	3.60	•	—
Iodoform, NF, dms., 300-lbs., f.o.b. works lb.	4.90	•	—
dms., 100-lbs., same basis ... lb.	5.05	•	—
a-Ionone, cns. ..... lb.	4.60	•	5.75
b-Ionone, cns. ..... lb.	4.15	•	6.15
Ipecac root, whole, bgs ..... lb	8.00	•	8.50
Powd., bbls bxs. ..... lb.	9.50		10.00
Irish moss, bleached, prime, bls. lb.	.20	•	.23

Iron blue, alkali-resisting, bbls., c.l., dlvd. E lb.	.57	•	—
bbls., l.c.l. ton lots same basis, lb.	.58	•	—
bbls., smaller lots same basis lb.	59	•	—
Dom., reg., bbls., c.l., dlvd. E lb.	.52	•	—
bbls., l.c.l., ton lots, same basis lb.	.53	•	—
bbls., l.c.l., smaller lots, same basis lb.	.54	•	—
Imp., British, reg., bbls., c.l., dlvd. E lb.	.48	•	—
bbls., l.c.l., ton lots same basis lb.	.49	•	—
bbls., l.c.l., smaller lots, same basis lb.	.50	•	—
Iron blue dlvd. prices 1c. higher for Pacific Coast states:—Wash., Ore., Cal., N. M., Ariz., Mon., Wyo., Utah, Col and Nev.			
Iron compounds (see Ferric or Ferrous)			
Iron oxide, black, pure, bgs., c.l., works lb.	.14¾	•	—
bgs., l.c.l., works ..... lb.	.15	•	—
Iron oxide, brown, pure bgs., c.l., works lb.	.14¼	•	—
bgs., l.c.l., works ..... lb.	.14½	•	—
Iron oxide, metallic, brown, bgs., works lb.	.05¼	•	—
Iron oxide, Persian Gulf, red, bgs., c.l. works lb.	.08¾	•	—
Iron oxide, red, dom., pure, bgs., Bethlenem Easton E. St. Louis, New York City lb.	.14¼	•	—
Iron oxide, red nat. 75-85% ferric oxide, bgs. c.l. works lb.	.06¼	•	—
bgs. l.c.l. works ..... lb.	.06½	•	—
Iron oxide, Spanish red, bbls., c.l., ex dock lb.	.05¾	Nom.	
bbls. l.c.l. ex dock ..... lb.	.06	Nom.	
bbls. l.c.l. ex whse New York, lb.	.06¼	Nom.	

Iron oxide, yellow, nat., French type, bgs., c.l., works lb.	.06¼	•	—
Peruvian type bgs. l.c.l lb.	.023	•	.024
Iron oxide, yellow, pure, light lemon shade bgs. c.l. works lb.	.12¼	•	—
Other shades same basis lb.	.12	•	—
Isoamyl alcohol, dms., c.l., works, frt. alld E lb.	.27½	•	—
dms., l.c.l., same basis ..... lb.	.29	•	—
tanks, same basis ..... lb.	.25	•	—
Isoborneol, cns. ..... lb.	1.44	•	1.80
Isobornyl acetate, cns. ..... lb.	.46	•	.56
Isobornyl formate, dms. ..... lb.	1.20	•	—
Isobornyl proprionate, dms. ..... lb.	1.25	•	1.35
Isobutyl acetate, perfume grade, cns lb.	.33	•	—
Isobutyl acetate, solvent grade, dms., c.l., dlvd. E. of Rockies lb.	.15¼	•	—
dms., l.c.l. same basis ..... lb.	.16¾	•	—
tanks same basis ..... lb.	.12¾	•	—
Isobutyl alcohol, dms., c.l., dlvd. lb.	.15¼	•	—
dms., l.c.l., dlvd. ..... lb.	.17	•	—
tanks, dlvd. ..... lb.	.13	•	—
Isobutylene, 99%, tanks, works gal.	.38	•	—
Isobutyl isobutyrate, dms., f.o.b. works lb.	.73	•	—
Isobutyraldehyde, CP, dms., c.l., dlvd lb.	.27½	•	—
dms. l.c.l., dlvd ..... lb.	.28½	•	—
Tech., dms., c.l., dlvd ..... lb.	.22	•	—
dms., l.c.l., dlvd. ..... lb.	.23	•	—
tanks, dlvd. ..... lb.	.19½	•	—
Isobutyronitrile, dms., c.l., dlvd lb.	.52	•	—
dms., l.c.l., same basis ..... lb.	.57	•	—

Isobutyric acid, dms., c.l., t.l., dlvd. lb.	.35	•	—
dms., l.c.l., l.t.l., same basis... lb.	.36½	•	—
t.c., t.t., same basis ..... lb.	.33	•	—
Isoeugenol, cns. ..... lb.	3.40	•	4.25
Isoniazid, powd., bulk, kilo or more kilo	13.00	•	—
Isonicotinic acid, 100-lb fib dms., works lb	4.25	•	—
Isonicotinic acid hydrazide (see Isoniazid).			
Iso-octyl alcohol, dms., c.l., dlvd E. lb	23½		—
dms., l.c.l., dlvd E ..... lb	25		—
tanks, dlvd E. ..... lb	21		—
Isopentane, comi. grade, tanks, f.o.b Tex rety gal.	15½		—
Isophorone, dms., c.l., works . lb.	.24½		—
dms., l.c.l., works ..... lb.	.25¼		—
tanks, works ..... lb.	.22½		—
Isophthalic acid, dms. c.l. works, frt. equald lb.	.18	•	—
dms., l.c.l., same basis ..... lb.	.19	•	—
Isopropanol (see Isopropyl alcohol).			
Isopropyl acetate, dms., c.l., dlvd. lb.	.14	•	—
dms, l.c.l., same basis ..... lb.	15½	•	—
tanks, same basis ..... lb.	.11½	•	—
Isopropyl alcohol, refd., 91%, dms., c.l. dlvd gal.	.53	•	—
dms., l.c.l., dlvd ..... gal.	.63	•	—
tanks, dlvd. ..... gal.	.42	•	—

IS YOUR INDUSTRY LISTED HERE?



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Isopropyl alcohol, refd., 95%, c.l., dms., dlvd. gal. .60 - —
dms., l.c.l. dlvd ..... gal. 70 - —
tanks dlvd ..... gal. 44 - —
anhyd., c.l., dlvd. ..... gal. .62 - —
dms c.c.l., dlvd ..... gal. 72 - —
tanks dlvd ..... gal. 46 - —

Isopropyl benzene (see Cumene).

Isopropyl ether, dms. c.l. dlvd lb. .09½- —
dms., l.c.l., dlvd ..... lb. 11 - —
tanks, dlvd ..... lb. .07 - —

Isopropyl N (3-chlorophenyl) carbamate (CIPC) tech. dms., c.l., t.l. works lb 1.00 - —
dms., l.c.l., works ..... lb 1.05 1.25
tanks works ..... lb. .99 - —

Isopropylamine (see Mono Di, or Tri-)

Isopropyl N phenyl carbamate, 450-lb fib dms., c.l., t.l., works lb 75 - —
450 lb fib dms. l.c.l., works lb .80 .90

Isoquinoline dms. works ..... lb 65 1.25

Itaconic acid refd. bgs. c.l., f.o.b. works lb. 53½- —
bgs. l.c.l. same basis ..... lb .54½- —
Tech., bgs., c.l., same basis lb. .38½- —
bgs., l.c.l., same basis ..... lb. .39½- —

J

J acid paste, bbls., works, 100% basis lb 2.70 - —
Powd. bbls., same basis ..... lb 2.75 - —

Jalap root, NF, bls. .....lb. .60 - —
NF, powd., bbls., bxs. .....lb. .70 - .75
Japan wax, cs ..... lb .27 - .29
Juniper berries, bgs.....lb. .16 - .17
Juniper berry oil, NF, bots.....lb 2.90 - 3.75
Twice rectified bots. .....lb 3.25 - —
Juniper tar oil NF dms ..... lb. .42 - .60
Juniper wood oil, tech., cns. ....lb. .38 - .55

K

Kaolin (see also Clay, China).
Kaolin, NF, powd., fib. dms. ....lb. .10 - .12
NF, colloidal, 50-lb. bgs ....lb. .15½- .17½
Karaya gum No. 1, NF powd. bls lb. .45 - .48
No. 2, powd., bbls. .....lb. .40 - .42
No. 3, powd., bbls .....lb. .35 - .37
Koch acid, bbls., frt. alld., 100% basis lb 1.00 - —
Kola nuts, bgs. .....lb. .13 - .15

L

L acid, bbls., works .....lb. 1.25 - —
Lacquer diluent, petroleum, 140°F-200°F b.r., tankcars, New Jersey and New York gal. .20 - —
Group 3 ..... gal. .15125- —
Houston, Texas ..... gal. .16 - —
200°F-240°F b.r., tankcars, New Jersey or New York gal. .20 - —
Group 3 ..... gal. .14125- —
Houston, Texas ..... gal. .16 - —

Lactic acid, edible, 50%, bbls. dms., c.l., frt. equald lb. .1985- —
bbls., dms., 20 or more, frt. equald lb. .2035- —
bbls. dms. 5 to 19 frt. equald. lb. .2085- —
bbls., dms., 1 to 4, frt. equald. lb. .2135- —
80%, bbls., c.l., dms., frt. equald lb. .3335- —
bbls., dms., 20 or more, frt. equald lb. .3385- —
bbls dms 5 to 19 frt. equald. lb. .3435- —
bbls., dms., 1 to 4, frt. equald. lb. .3485- —
Plastic grade, 50%, c.l., bbls., works lb. .2740- —
bbls. 20 or more works lb. .2790- —
bbls. 5 to 19, works .... lb. .2840- —
bbls. 1 to 4, works ..... lb. .2890- —
80%, bbls., c.l works..... lb. .4625- —
bbls. 5 to 19, works ... lb. 4725- —
bbls. 1 to 4 works ..... lb. 4775- —
Tech., 44%, bbls., c.l., works. 100 lbs.12.45 - —
bbls., l.c.l., works... 100 lbs.12.85 - —
USP, 85% cbys. ..... lb. .85 - —
Lactose, crystalline, edible, bgs., 23,000-lb lots, frt equald lb. .14 - —
bgs., 6,000-lb lots, frt equald lb. .14½- —
bgs., 2,000-lb lots, frt equald lb. .14¾- —
bgs., 200-lb lots, frt equald lb. .15¼- —
Edible lactose in fib. dms., ½c higher.
Lactose, ferment. grade bgs., c.l., works lb. .08½- —
USP, reg., fib. dms., 30,000-lb. lots, frt. equald lb. .21½- —
fib. dms. 2,000-lb lots, frt. equald lb. .22¼- —
200-1,880-lb. lots, frt. equald lb. .22¾- —
USP lactose in bags ½c to 1c. lower.

Lactose, USP spray dried, bgs., t.l., frt. equald lb. .18¼- —
bgs., l.t.l., frt. equald ... lb .19 - .19¾
Lady's slipper root, bls. ..... lb. 3.00 - 3.50
Lake C red toner, alizarine, bbls., works lb 1.25 - —
Lamp black, bgs. c.l., works .. lb. .16 - .45
Lanolin, USP, anhyd., 400-lb. dms., works lb. .24 - .26
USP, anhyd., cosmetic, 400-lb. dms., works lb. .28 - .30
USP, hydrous, 400-lb. dms., works, lb. .24 - —
Lard, cash, dms., Chicago ..... lb. .09¼- —
Lard oil (see Grease oil).
Larkspur seed, bgs ..... lb. .40 - .45
Laurel leaf oil, dms. cns. ..... lb 9.75 -12.50
Laurent's acid, bbls ..... lb. .70 - —
Lauric acid, pure, dms ..... lb. .38½- .41
tanks ..... lb. .36 - .37
Lauryl alcohol, bots. .. .. lb. 2.00 - 2.50
n-Lauryl methacrylate, dms., c.l., t.l. works lb. 65¼- —
dms., l.t.l., works lb. .66 - —
Lavandin oil, 22-24%, dms. ..... lb 1.10 - 1.50
Abrial, dms. ..... lb 1.00 - 1.50
Lavender flowers, medium, bls lb 55 - .60
Ord., bls. ..... lb 20 - .25
Select., bls. ..... lb 90 - 1.00
Lavender flower oil, USP, French 35-37% ester, cns lb. 1.85 - 4.00
40-42% ester cns lb 5.00 - 7.75
Spike, Spanish, cns lb 2.20 - 3.00
Lead acetate, NF, cryst., gran., powd., bbls lb. .34½- —
White, cryst., bbls. ..... lb. .25½- —
gran., bbls. ..... lb. .26½- —
powd, bbls. ..... lb. .26½- —
Lead arsenate, acid powder, dealers, 3-50 lb. bgs or any quantity, frt. alld. on $150 or more lb. .30½- —
1-lb bgs. same basis lb. .47 - —
Lead, blue, basic sulfate, bbls. c.l., shipt. point, frt. alld. ... lb. .17 - —
bbls., l.c.l. same basis ..... lb. .18 - —
Lead carbonate (see Lead, white, basic carbonate)
Lead chloride, dms. ..... lb. .52 - —
Lead iodide, NF, V. jars ..... lb. 3.82 - —
Lead linoleate, fused, 26% Pb, dms. lb. .38 - —
Lead metal, prime, pigs, New York, lb. .12½- —
St. Louis ..... lb. .1250- —
Lead monosilicate, bgs., c.l., works, frt. equald lb. .1385- —
bgs., l.c.l., same basis ..... lb. .1485- —
Lead naphthenate, liq., 16% Pb, dms., dlvd lb. .19½- —
24% Pb, dms., dlvd. ..... lb. .24¼- —
Solid, 37% Pb, dms., dlvd. .. lb. .31¾- —
Lead nitrate, bbls. ..... lb. .24¼- .26¾
Lead orthosilicate-gel, 50-60% PbO, dms., works lb. .29¾- .34¼
Lead peroxide, tech, powd. bbls lb. .45 - .50
Lead phthalate dibasic, dms., works, lb. .41 - —
Lead, red, 95% Pb_3O_4 or less, bbls., c.l., works, frt. equald. lb. .1425- —
bbls., l.c.l., same basis. lb. .1525- —
97% Pb_3O_4, bbls., c.l., same basis lb. .1445- —
bbls, l.c.l., same basis ..... lb. .1545- —
98% Pb_3O_4, bbls., c.l., same basis lb. .1460- —
bbls., l.c.l., same basis .. lb. .1560- —
Lead resinate precip 23% Pb, dms., ton lots, dlvd lb. .43¾- —
Lead salicylate normal, dms. works, lb. .46 - —
Lead silicate (see Lead white basic silicate).
Lead silicochromate, bgs., c.l., f.o.b. mfrs. point, frt. alld lb. .20 - —
bgs., l.c.l., same basis ..... lb. .21 - —
Lead sulfate (see Lead blue basic sulfate).
Lead tallate, liq., 16% Pb, dms. lb. .17¼- —
24% Pb, dms ..... lb. .26¾- —
Solid, 30% Pb, dms. lb. .23¾- —
Lead, white, basic carbonate, bgs., c.l., shipt. pt. frt. alld lb. .18 - —
bgs., l.c.l., same basis .. lb. .19 - —
basic silicate, bgs., c.l., shipt. pt., frt. alld. lb. .16½- —
bgs., l.c.l., same basis .. lb. .17½- —
basic silicate, bgs., c.l., shipt. pt., frt. alld. lb. .17 - —
bgs. l.c.l., same basis .. lb. .18 - —
Lecithin, edible, tech., bleached, non-ret. dms., c.l., works. lb. .14 - .15
non-ret. dms., l.c.l., same basis lb. .15 - .16
unbleached, non-ret. dms., c.l., same basis lb. .13 - .14
non-ret. dms., l.c.l., same basis lb. .14 - .15
Lemon bioflavonoid complex, 100-lb. package, works lb. 6.45 - —
Lemon oil, USP, Calif., cns., dms. lb. 1.40 - 1.50
Messina, cns. ..... lb. 3.75 - 5.00
Lemongrass oil, cns., dms..... lb. 2.00 - 2.55
dl-Leucine, dms., works..... lb 12.25 -15.00
Licorice root, gran., bls. ..... lb. .13 - —
Powd., bls. ..... lb. .15 - .16
Whole, bls. ..... lb. .09 - .10
Lignaloe wood oil, Mexican, cns lb 2.75 - 3.50
Lignosulfonate (see under ammonium or sodium lignin sulfonate)
Lime, chemical (quicklime), bulk, c.l., 50,000 lbs., works, E. ton 14.25 - —
Chemical, hydrated, bgs., c.l., same basis ton 17.25 - —
Chemical, spray, bgs. c.l., same basis ton 18.25 - —
For New York delivery, add $6.29 freight charge.
Lime oil, dist., Mexican, cns....lb. 5.90 - 6.75
West Indian, cns. .....lb. 6.50 - 7.80
Expressed, West Indian, cns lb. 7.75 - 8.75
Lime salts (see Calcium).
Lime-ammonium nitrogen, 20.5% N (see Ammonium nitrate with dolomite).
Linalool, ex bois de rose oil, dms. lb. 2.90 - 3.75
Syn., 98-100% dms., works .. lb. 3.20 - 3.60
Linalyl acetate, ex bois de rose, 90-92%, dms. lb. 2.75 - 3.40
96-98%, dms. ..... lb. 3.25 - —
Syn., 98-100%, dms., works .. lb. 3.40 - —
Lindane, 25% formulation to distributors dms., frt alld lb. 1.35 - 1.50
Lindane, tech., to formulators, 250-lb. dms., 5,000 lbs., dlvd lb. 2.13 - —
100-lb. dms., 5,000-lbs. dlvd lb. 2.15 - —
250-lb. dms., less than 5,000-lbs., dlvd lb. 2.18 - —
100-lb. dms., less than 5,000-lbs., dlvd lb. 2.20 - —

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Linden flowers, with leaves, bls.	lb.	.33	.40
Without leaves, bls.	lb.	.42	.48
Linseed meal, expeller, 32% bulk, Minneapolis, mills	ton.	63.50	—
Extracted, 34% bulk, same basis.	ton.	56.00	-56.50
Linseed oil, raw, dms., c.l., New York	lb.	.1710	—
dms., l.c.l., New York	lb.	.1800	.1875
tanks, f.o.b. Minneapolis	lb.	.1350	—
tanks, New York	lb.	.1461	—
tankwagon, New York	lb.	.1511	—
Boiled linseed oil, .006c. per lb. higher.			
Linseed oil, acid, dist., dms.	lb.	.2060	—
Water-white, dms.	lb.	.2360	—
Litharge, coml., powd., bbls., c.l., works, frt. equald	lb.	.1375	—
bbls., l.c.l., same basis	lb.	.1475	—
Lithium aluminum hydride, lump, dms., works	lb.	33.00	-39.00
Lithium benzoate, dms.	lb.	1.65	- 1.67
Lithium bromide, NF, gran., bgs., works, frt. equald	lb.	2.60	- —
Lithium carbonate, NF, dms., c.l., t.l., dlvd	lb.	1.29½	—
dms., ton lots to t.l., dlvd	lb.	1.30	- 1.30½
Tech., dms., c.l., t.l., frt alld	lb.	.67	- —
dms., ton lots, same basis	lb.	.73	- —
dms., smaller lots, same basis.	lb.	.79	- —
Lithium chloride, CP, anhyd., dms., ton lots	lb.	1.23½	—
Tech., anhyd., dms., c.l., t.l., dlvd. or works, frt. alld	lb.	.87	- —
dms., l.c.l., same basis	lb.	.83	- .92
Lithium citrate, NF, dms., ton lots.	lb.	1.50	- —
Lithium fluoride, dms., 20,000-lb. lots, dlvd	lb	2.15	- —
bbls., ton lots and more, dlvd.	lb	2.18½	—
bbls., less ton lots, dlvd.	lb.	2.23½	—
Lithium hydride, powd., dms., 500-lb. lots or more, works	lb.	9.50	- —
Lithium hydroxide, monohydrate, dms., c.l., t.l., frt. alld	lb.	.72	- —
dms., l.c.l., frt. alld.	lb.	.73	- —
Lithium manganite, cms., works	lb.	.93	- 1.03
Lithium nitrate, tech., dms., 100-lb. lots	lb.	1.15	- 1.25
Lithium salicylate, dms.	lb.	1.60	- 1.70
Lithium silicate, dms., works	lb.	1.10	- 1.20
Lithium stearate, dms., c.l., works,	lb.	.47½	—
dms., ton lots, works	lb.	.48½	—
dms., less-ton lots, works	lb.	.53½	—
Lithium sulfate, dms., 100-lb. lots.	lb.	1.15	- 1.25
Lithium titanate, dms., works	lb.	1.15	- 1.25
Lithol red toner, barium, bbls., works	lb.	.93	- —
Lithol-rubine red toner, pure bbls., works	lb.	1.50	- —
Resinated, bbls., works	lb.	1.47	- —
Lithopone, ord. bgs., c.l., dlvd E.	lb.	.08¾	—
bgs., l.c.l., dlvd E.	lb.	.09¼	—
Titanated (high-strength), bgs., c.l., dlvd.	lb.	.11	- —
bgs., l.c.l. dlvd.	lb.	.12	- —
Lobelia herb, bls.	lb.	.55	- —
Lobeline sulfate, bots., 50-oz. lots, works	oz.	30.00	- —
Locust bean gum, powd., bgs.	lb.	.38	- .40
Lycopodium, cs.	lb.	3.25	- 3.50
l-Lysine monohydrochloride, 25-lb. dms	lb.	4.95	- —

M

Mace, Siauw, No. 1, bls.	lb.	1.90	- —
No. 2, whole, bls.	lb.	1.65	- —
siftings, bls.	lb.	1.60	- —
Mace oil, dist., cns., dms.	lb.	9.75	-12.25
Magnesia calcined tech. bgs., cns., frt. equald	lb.	.25¼	.26½
Tech., syn., rubber grade, light, bgs., c.l., frt. equald	lb.	.29¾	.30
rubber grade, extra light, bgs., c.l., frt. equald	lb.	.28	- —
bgs., l.c.l., frt. equald	lb.	.28¾	—
Above prices are quoted f.o.b. works, freight equald, with Metropolitan New York and competitive producing points.			
Magnesia, calcined, tech., heavy, 85%, bgs., c.l., f.o.b. Luning, Nev.	ton.	39.50	- —
91%, bgs., c.l., same basis.	ton.	49.50	- —
95%, bgs., c.l., same basis.	ton.	59.00	- —
USP, light, bgs.	lb.	.36½	.37½
USP, heavy, bgs.	lb.	.36¼	.37½
Magnesite, chemical grade, calcined, powd., bgs. c.l., works. frt. equald	ton.	86.25	- —
Chemical grade, deadburnt, standard grain, bulk, c.l., Chawelah, Wash.	ton.	46.00	- —
Magnesium bromide, cs., jars	lb.	.95	- 1.00
Magnesium carbonate, tech., bgs., c.l., frt. equald	lb.	.11	- —
bgs., t.l., frt. equald	lb.	.11½	—
bgs., l.c.l., frt. equald	lb.	.13½	.14
USP, bgs., c.l., frt. equald	lb.	.13½	—
bgs., t.l., frt. equald	lb.	.14	- —
bgs., l.c.l., frt. equald	lb.	.15	- .16
Above prices are quoted f.o.b. works, freight equald, with Metropolitan New York and competitive producing points.			
Magnesium chloride, anhyd., 92%, flake or pebble, dms., c.l., works	lb.	.12¾	—
dms., l.c.l., works	lb.	.14	- .15
Hydrous, 99%, flake, bgs., c.l., works	ton.	55.00	- —
bgs., l.c.l., works	ton.	65.00	-80.00
Magnesium gluconate, 100-lb. dm., f.o.b. works E	lb.	1.42	- —
Magnesium hydroxide, NF, powd., dms., 500-lbs. or more, f.o.b., works	lb.	.24¼	.25½
Magnesium lauryl sulfate, dms., c.l., frt. alld	lb.	.22½	—
dms., l.t.l., frt. alld.	lb.	.23½	—
tanks, frt. alld.	lb.	.21¼	—
Magnesium metal, 99.8%, ingots, 10,000-lb. lots or more, works	lb.	.36	- —
pigs, 10,000-lb. lots or more, works	lb.	.35¼	—
sticks, cs. works frt. alld. on carlots	lb.	.59	- —
Magnesium nitrate, cryst., dms., works	lb.	.23	- —
Magnesium oxide (see Magnesia, calcined).			
Magnesium phosphate tribasic, NF, bbls	lb.	.75	- —
Magnesium silicate (see Talc).			
Magnesium silicofluoride, dms., works	lb.	.10½	.13
Magnesium sulfate, tech., bgs., c.l., works	100 lbs.	2.15	- —
bgs., l.c.l., works	100 lbs.	2.90	- 3.15
USP, cryst., bgs., c.l., works, 100 lbs.		2.33	- —
bgs, l.c.l., 5,000 lbs., 1 withdrawal	100 lbs.	3.10	- —
bgs, smaller lots	100 lbs.	3.35	- —
Magnesium trisilicate, USP, fib. dms., 5,000-lb. lots	lb.	.38	- —
fib. dms., 1,000-lb. lots	lb.	.40	- —
fib. dms., 100-lb. lots	lb.	.43	- —
Bulky and super grades of magnesium trisicilate 7c. per. lb. higher.			
Malachite green, straight, PTMA, bbls. works	lb.	5.30	- —
Malathion, dms., c.l., works	lb.	.89	- —
dms., l.c.l., works	lb.	.92	- 1.01
Maleic acid, cryst., powd., dms	lb.	.37¼	—
Maleic anhydride, dms., c.l., frt. equald	lb.	.23½	—
dms., l.c.l., frt. equald.	lb.	.25	- —
tanks, frt. equald	lb.	.22½	—
Malic acid, tech., dms.	lb.	.50	- —
Mandelic acid, NF, dms., 1,000-lb. lots	lb.	2.35	- —
dms., smaller lots	lb.	2.40	- 2.50
Mandrake root, bls.	lb.	.40	- —
Manganese acetate, dms., dlvd.	lb.	.35	- —
Manganese borate, tech., fib. dms.	lb.	.23½	—
Manganese carbonate, chemical grade, 46% Mn, bgs., 20,000-lb. lots and more, works	lb.	.11	- .16
Manganese chloride, CP, anhyd., dms., 20,000-lb. lots, works	lb.	.21¾	—
smaller lots, works	lb.	.23½	—
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, burlap paper lined bgs., gross for net works	ton.	148.00	- —
40,000 to 99,999-lb. lots, paper bgs., same basis	ton.	144.50	- —
40,000 to 99,999-lb. lots, dms. same basis	ton.	152.50	- —
Prices for manganese dioxide in 10,000 to 40,000-lb. lots, $3 per ton higher.			
Manganese gluconate, dms.	lb.	1.34	- —
Manganese hydrate, dms., dlvd.	lb.	.35	- —
Manganese hypophosphite, NF, dms.	lb.	3.52	- —
Manganese linoleate, liq., 4.35% Mn, dms	lb.	.35¾	—
Solid, precip., 8.2% Mn, bbls	lb.	.41¼	—
Manganese metal, electrolytic, dms., c.l., dlvd. E.	lb.	.34	- —
dms., ton lots, dlvd. E.	lb.	.36	- —
dms., smaller lots, dlvd. E.	lb.	.38	- —
Manganese naphthenate, liq., 6% Mn, dms., frt. alld	lb.	.29¼	—
Manganese resinate, fused, 3½% Mn, dms.	lb.	.29¼	—
Precip., 6½-7% Mn, dms.	lb.	.37	- —
Manganese sulfate, fertilizer grade, 65% $MnSO_4$, bgs., c.l., dlvd S. E.	ton.	97.50	- —
bgs., l.c.l., dlvd. S. E.	ton.	104.50	- —
Manganese tallate, 6% dms.	lb.	.26½	—
Manila copal gum, C, bgs.	lb.	.35	- .39
DBB, bgs.	lb.	.25	- .28
DK, bgs.	lb.	No stocks.	
DK, dust bgs.	lb.	.14	Nom.
MA, soft, bgs.	lb.	.20	- .24
WS, bgs.	lb.	No stocks.	
Mannitol, com'l, fib. dms., ton lots, works	lb.	.60	- —
fib. dms. to ton lots, works	lb.	.62	- —
fit. dms., single dm., works	lb.	.65	- —
Marine pitch, dms.	lb.	.04¼	.05
MBTS (see Mercaptobenzothiazyl disulfide).			
MBT (see 2-Mercaptobenzothiazole).			
Melamine, bgs., c.l., works	lb.	.26	- —
bgs., l.c.l., works	lb.	.27½	—
Menadione USP bots.	gram	.044	.05
Menhaden oil, crude, tanks, works, Atl. & Gulf	lb.	.06¾	—
Menthol, nat., USP, Brazilian, large crystals, cs.	lb.	8.25	- 9.00
Nat., USP, Brazilian, regular crystals, cs.	lb.	8.50	- —
Japanese, cs.	lb.	12.00	- —
Syn., USP, racemic, 25-lb. lots	lb.	4.25	- —
2-Mercaptobenzothiazole, bgs., fib. dms., ton lots, works, frt. alld	lb.	.44	- —
bgs. fib. dms less ton lots, same basis	lb.	.46	—
Mercaptobenzothiazyl disulfide, bgs., fib. dms. ton lots, works, frt. alld	lb.	.54	- —
bgs. fib. dms. less ton lots, same basis	lb.	.56	- —
Mercuric chloride, NF, cryst., dms., 50-lb lots or more	lb.	4.98	- —
USP, gran. or powd., 50-lb. dm., 100 lbs., f.o.b. works	lb.	4.73	- —
Mercuric cyanide, NF VIII, powd., fib dms	lb.	6.84	- —
Mercuric iodide red, NF, 100-lb. dm., f.o.b. works	lb.	7.72	- —
Mercuric oxide, red., NF IX, 50-lb. dm., 100 lbs., f.o.b works	lb.	5.97	- —
tech., 50-lb. dm., 100 lbs., same basis	lb.	5.77	- —

• low sweetness • soluble, uniform • free flowing, anti-caking aid
• flavor-enhancing • pigment-absorbing
• non-reacting with other ingredients • fermentation agent
• bland, almost tasteless triturate

Lactose is an amazing sugar with unlimited uses. It can improve your present products and help you develop new ones. It can lower your costs, simplify your processing. New uses are being discovered for it every day.

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Appleton, Wisconsin
World's Largest Producer of Lactose-Pure Milk Sugar

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Mercuric Oxide—Mineral Oil

Mercuric oxide, yellow, NF, 50-lb. dm., 100 lbs., same basis lb. 6.14 • —
tech., bbls. 1,000-lb. lots .. lb 5.58 • —
bbls. smaller lots ..... lb 5.60 • —
Mercurous chloride (see Calomel).
Mercurous iodide, yellow, NF, 100-lb. dm., f.o.b. works lb. 8.22 • —
Mercury, ammoniated (see White precipitate USP XV).
Mercury metal, 76 lbs. per flask, net-flask 215.00 -217.00
Mesityl oxide, dms., c.l., dlvd. lb. .15 • —
dms., l.c.l., dlvd. ..... lb. .16½- —
tanks, dlvd. ..... lb. .12½- —
Meta-aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Chloroaniline).
Metanilic acid, dms., works .... lb. .57 • .75
Metanitroparatoluidine (see m-Nitro-toluidine).
Metanitroaniline (see m-Nitroaniline).
Metaphenylenediamine (see m-Phenylenediamine)
Metatoluidine (see m-Toluidine).
Metatolylenediamine (see 2,4-tolylenediamine).
Methacrylic acid, glacial, 98%, dms., truckloads, frt. equald lb. .42½- —
dms. smaller lots, frt. equald, lb. .43 • .75
tanks, works, frt equald lb. .40 • —
Methanol, nat., denaturing grade, tanks, frt. alld gal. .85 • —
Syn. zone 1 dms. c.l or t.l. min., dlvd gal. .51½- —
dms., l.c.l., dlvd gal. .61½- —
tankwagon, 2,000-4,000 gal. lots, dlvd, Metropolitan area gal. .35 • —
Methanol, nat., zone 1, tankwagon, 4,000 gal. min., dlvd gal. .30 • —
tankwagon, 4,000 gal. min., f.o.b. terminal gal. .29 • —
Syn., zone 2, dms., c.l., or t.l., min., frt. alld or dlvd gal. .55½- —
dms., l.c.l., works ..... gal. .65½- —
tankwagon, 2,000-4,000 gal. lots, min., dlvd., Metropolitan area gal. .39 • —
tanks, 4,000 gal. min. dlvd. gal. .34 • —

Synthetic methanol zones are: Zone 1 is all continental US E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of US west of above state boundaries comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.

Methapyrilene fumarate, 100-999 lbs., dms., f.o.b. works, frt. equald lb. 21.75 • —
Methapyrilene hydrochloride, 100-999 lbs., dms., f.o.b. works, frt. equald lb. 27.25 • —
Methenamine (see Hexamethylenetetramine).
Methionine hydroxyanalogue, (calcium salt) 90% min., dms., t.l., frt. alld. .... lb. 1.10 • —
dms., l.t.l., same basis ..... lb. 1.16 • —
dl-Methionine, fib dms., frt. alld., 50-lb or more lb. 3.50 • —
Feed grade, 98%, fib. dms., same basis lb. 1.55 • —
Methoxychlor, 50% wettable powder, dealers, dms., cs. lb. .66 • —
Methyl abietate, non-ret. dms., c.l., dlvd. zone 1 lb. .21½- —
non-ret. dms., t.c.l., same basis lb. .22 • .22½
Methyl abietate, hydrogenated, non-ret. dms., c.l., dlvd. zone 1 lb. .23½- —
non-ret. dms., t.c.l., same basis, lb. .24 • .24½

Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio., Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala., Ga., Fla., S. C. and Tenn.

Methyl acetone, nat., dms., t.c.l., E. of Miss., frt. alld gal. .62½- —
Syn., dms., c.l., frt. alld E gal. .66 • —
dms., t.c.l., frt. alld. E. ... gal. .76 • —
tanks, frt. alld. E. ..... gal. .51 • —

Synthetic methyl acetone E. territory comprises all states East of and including Colo., Mont., N. Mex. and Wyo. West territory is made up of all states west of those four.

Methyl acrylate, dms., c.l., t.l., dlvd. lb. .39 • —
dms., l.t.l., dlvd. ..... lb. .40 • —
tanks, dlvd. ..... lb. .37 • —
Methyl alcohol (see Methanol).
Methyl amyl acetate, dms., c.l., dlvd. E lb. .17 • —
dms., t.c.l., dlvd. E. ..... lb. .18½- —
tanks, dlvd. E. ..... lb. .14½- —
Methyl amyl alcohol, dms., c.l., dlvd. lb. .17 • —
dms., t.c.l., dlvd. ..... lb. .18½- —
tanks, dlvd. ..... lb. .14½- —
Methyl amyl ketone, dms. works. lb. 1.05 • —
N-Methylaniline tech. tanks, frt alld lb. .60 • —
Methylanthranilate, cns. ..... lb. 2.45 • 3.00
Methyl benzoate cns., dms. .... lb. .60 • .75
Methyl bromide, service organization prices, 40 to 375-lb. cyls., large lots, frt. alld lb. .63 • .66
Methyl cellulose, special vis., (1,500-4,000 cps.) 50-lb bgs., c.l., works lb. .82 • —
50-lb. bgs., 2,000-lb. lots and more, same basis ... lb. .89 • —
50-lb. bgs., smaller lots, frt. alld on 100 lbs lb. 1.05 • —
Standard vis. (15,400 cps.) 50-lb. bgs., c.l., frt. alld lb. .69 • —
50-lb bgs., 2,000-lb lots and more, same basis .... lb. .76 • —
50-lb bgs., smaller lots, frt. alld. on 100-lbs lb. .79 • .81
Methyl chloride, indust., cyls., frt. equald lb. .22¼- —
tanks, multi-unit, same basis, lb. .16¼- —
tanks, single unit, same basis, lb. 12¾- —
Refrigerator mfrs., cyls., dlvd lb. .48¾- —
Other consumers or service men, cyls., dlvd lb. .67¾- —
Methyl chloroform (see 1,1,1-Trichloroethane).
Methyl cinnamate, cns. lb 1.55 1.80
Methyl ethyl ketone, dms., c.l., dlvd lb. .15 • —
dms., t.c.l., dlvd .... lb. .16½ —
tanks, dlvd lb. .12½- —
2-Methyl-5-ethyl pyridine, dms., c.l., works lb. 45 • —
dms., t.c.l., works ..... lb. 45¾ —
tanks, works lb. 43 • —
Methyl formate, refd., dms. lb. .35 .40
Tech., non-ret dms., any quantity works lb. .10 • —
tanks, works lb. .07 • —
a-D Methyl glucoside, tech., 100-lb. multiwall paper bgs., c.l., works lb. .21 • —
100-lb multiwall paper bgs., t.l., min. 23,000 lbs., works lb. .21½- —
100-lb multiwall paper bgs., l.t.l., works lb. .23 • —
Methyl heptin carbonate, bots lb 28.00 31.00
Methyl p-hydroxybenzoate, fib. dms. lb 1.90 2.00
Methyl ionone, standard, cns. dms. lb. 3.40 3.85
Methyl isobutyl carbinol (see Methyl amyl alcohol).
Methyl isobutyl ketone, dms., c.l., dlvd lb. .17 • —
dms., t.c.l., dlvd. ..... lb. .18½- —
tanks, dlvd. ..... lb. .14½- —
Methyl methacrylate, dms., c.l., t.l., frt. equald with Belle, W. Va lb. .31 • —
dms., smaller lots, same basis lb. .31½- —
tanks, same basis lb. .29 • —
Methyl naphthyl ketone, cryst., cns lb 2.45 4.30
Methyl parahydroxybenzoate (see Methyl p-Hydroxybenzoate)
Methyl parathion tech. 80% dms., frt. alld E lb. .84 • —

Methyl parathion prices 2c. per lb. higher in West.

Methyl roseaniline chloride, NF., 5-lb. fib dms. lb. 6.90 • —
Methyl salicylate, dms. t.l., frt. alld lb. .60¼- —
dms., t.c.l. same basis lb. .62½- .67½
Methyl testosterone USP 100-gram bots gram No Prices.
2-Methyl-5-vinyl pyridine, 40-dm. lots or more, f.o.b. works lb. 1.30 • —
5-39-dm. lots, same basis .... lb. 1.35 • —
tanks, same basis ..... lb. 1.25 • —
Methyl violet toner, molybdated, PMA, bbls., dlvd. E. of Rockies lb 2.80 • —
Tungstated, PTMA, bbls., same basis lb. 4.35 • —

Methyl violet prices 1c. higher W. of Rockies.

Methylene blue, fib. dms., 100-lb. lots, frt. adjusted lb. 3.25 • —
Methylene chloride, tech., straight or assorted, dms., c.l., or t.l., dlvd lb. .13½- —
dms., t.c.l., t.l., dlvd lb. .15¾- —
tanks, 4,000-gal. min., dlvd. lb. .12¼- —
tanktrucks, 1,000-gal. min., dlvd. lb. .13¼- —
b-Methylnaphthalene, 32°C., m.p., dms., works lb. .90 • —
Methylpentanediol (see Hexylene glycol).
Methylphenylpyrazolone (see 1-phenyl-3-methylpyrazolone-5).
Methylthionine chloride (see Methylene blue).
Mica, dry-grd., paint, plastic, 100 mesh, bgs. c.l., works lb. .04 • —
roofing, 20 to 80 mesh, works lb. .03 • —
Mica, wet-grd., biotite, bgs., c.l., works, frt. alld. E lb. .06½- —
bgs. t.c.l. ex-whse. ..... lb. .07¼- —
paint or lacq., bgs., c.l., 325 mesh, works frt. alld E. lb. .08¼- —
bgs., t.c.l., ex-whse. or freight alld. E lb. .09 • —
rubber bgs., c.l., works, frt. alld. E lb. .08 • —
bgs., t.c.l., ex-whse or frt. alld. E lb. .08¾- —
wallpaper bgs., c.l., works, frt. alld. E lb. .08¾- —
bgs., ex-whse. or frt. alld. E lb. .09 • —
white, 5-10 microns, bgs., c.l., works, frt. alld. E ... lb. .08¼- —

Mica, wet-grd, W. of Miss. ½c. higher; W. of Rockies 1c. higher.

Microcrystalline wax, petroleum, coating grades, tankcars, works lb. .10 • .11
laminating grades, tankcars, works lb. .11 • .12
Mineral black, bgs., works lb. .0160- .0675
Mineral oil, white, tech., 50-65 vis., non-ret. dms., c.l., f.o.b. refy gal. .65 • —
50-65 vis., non-ret. dms., t.c.l., basis gal. .70 • —
tankcars, refy. ..... gal. .49 • —
65-75 vis., non-ret. dms., c.l., same basis gal. .65 • —
non-ret. dms., t.c.l., same basis gal. .70 • —
tankcars, refy. ..... gal. .49 • —
NF, 80-90°F vis., non-ret. dms., c.l., same basis gal. .66 • —
non-ret. dms., t.c.l., same basis gal. .71 • —
tankcars, refy. ..... gal. .50 • —
NF, 135-138 vis., non-ret. dms., c.l., same basis gal. .72 • —
non-ret. dms., t.c.l., same basis gal. .77 • —
tankcars, refy. ..... gal. .56 • —
NF, 145-155 vis., non-ret. dms., c.l. same basis gal. .78 • —
non-ret. dms., t.c.l., same basis gal. .83 • —
tankcars, refy. ..... gal. .62 • —
USP, 180-190 vis., non-ret. dms., c.l., same basis gal. .80½- —
non-ret. dms., t.c.l., same basis gal. .85½- —
tankcars, refy. ..... gal. .64½- —

MEK solvent power...

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High-purity methyl ethyl ketone is among the most versatile low-boiling solvents available to the surface coating industry. Its strong solvency for lacquer resins has made it a favorite with formulators.

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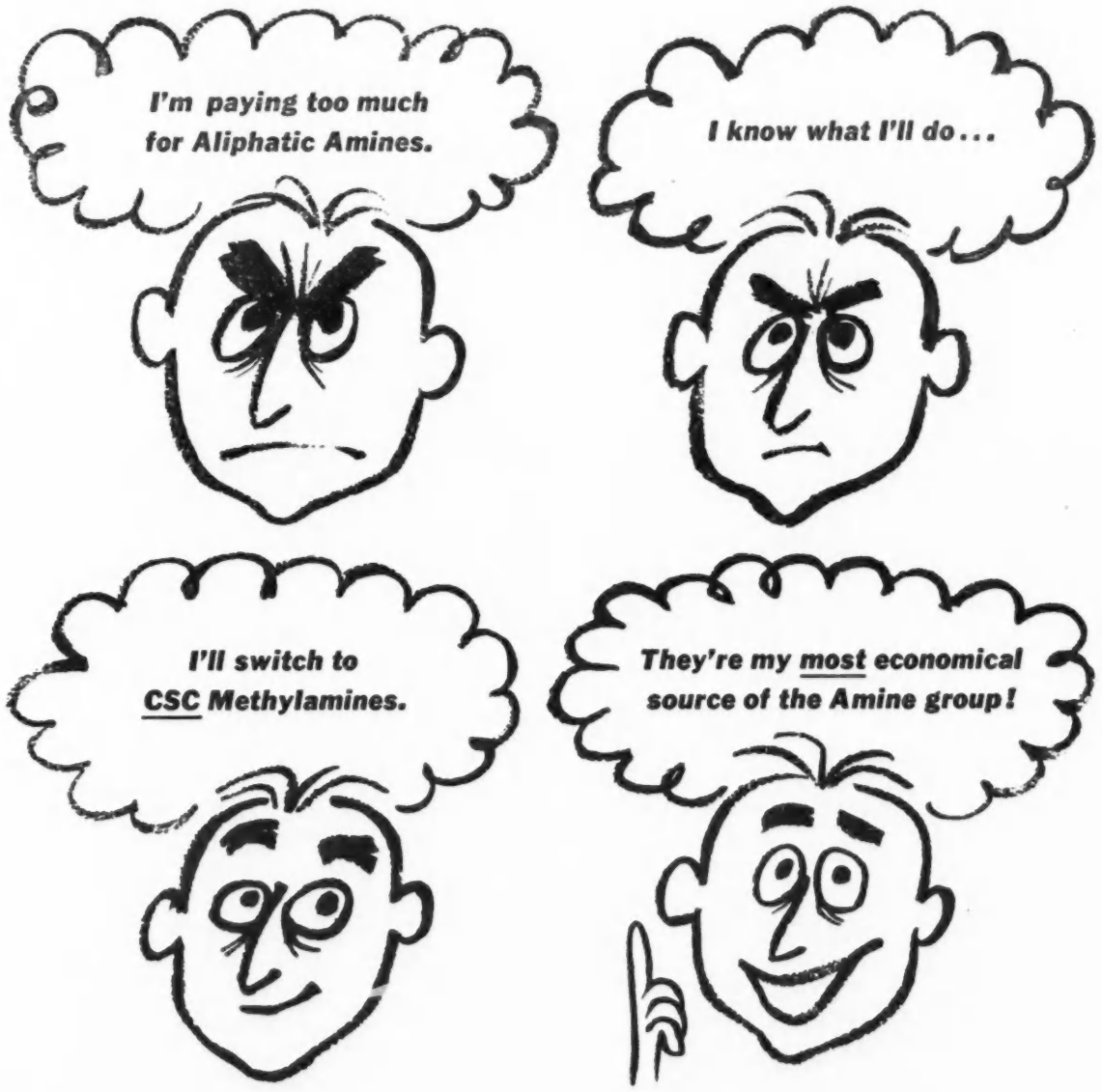
SHELL CHEMICAL COMPANY
INDUSTRIAL CHEMICALS DIVISION
Atlanta • Chicago • Cleveland • Detroit • Houston • Los Angeles • Newark • New York • San Francisco
IN CANADA: Chemical Division, Shell Oil Company of Canada, Limited, Montreal • Toronto • Vancouver

SHELL

Mineral oil, white, USP, 200-210 vis., non-ret. dms., c.l., f.o.b. refy	gal.	.82½-	—
non-ret. dms., l.c.l.	gal.	.87½-	—
tankcars, refy.	gal.	.66½-	—
USP, 340-350 vis., non-ret. dms., c.l., f.o.b. refy	gal.	.87½-	—
non-ret. dms., l.c.l.	gal.	.92½-	—
tankcars, refy	gal.	.71½-	—
(for f.o.b. N. Y. add 2c. for tankcars, 2c. for c.l. and 3c. for l.c.l. non-ret. dms.)			
Mineral orange, American, bbls., c.l., works	lb.	.1550-	—
bbls., c.l., same basis	lb.	.1650-	—
Mineral spirits, petroleum, odorless, tankcars, New Jersey	gal.	.29	—
New York	gal.	.305	—
Houston, Texas	gal.	.25	—
regular, tankcars, New Jersey and New York	gal.	.18	—
Group 3	gal.	.12875-	—
Houston, Texas	gal.	.145	—
Mink oil, dms	lb.	2.75	—
Mirbane oil (see Nitrobenzene)			
MNPT maroon toner, kgs., c.l., works	lb	6.30	—
Molasses, blackstrap, teeo grade tanks, New Orleans	gal.	.08¾-	.09
tanks, New York	gal.	.13½-	—
Molybdated orange, bbls.	lb.	.49	—
Molybdenum metal, powd., 80 or 200 mesh, ctns., works	kilo	7.84	—
325 mesh, ctns., works	kilo	9.13	—
Molybdenum trioxide purit., dms., works	lb	1.15	—
Tech. chemical dms. works, basis Mo content	lb	1.48	—
Tech., metallurgical, dms., works, basis Mo. content	lb.	1.47	—
Molybdic acid 85% dms. works	lb	1.05	1.15
Monoallylamine, dms., c.l., dlvd	lb.	.965	—
dms., c.l., dlvd.	lb.	.995	—
tanks, dlvd.	lb.	.96	—
Monoamylamine, dms., c.l., dlvd E. of Rockies	lb.	.57½-	—
dms., l.c.l., same basis	lb	.59	—
tanks, same basis	lb.	.55	—
Mono-tert-butyl-m-cresol, dms., c.l., works	lb	.55	—
dms., l.c.l., works	lb	.56	—
tanks, works	lb.	.54	—
Monochloracetic acid, purit (see Chloroacetic acid, mono)			
Monochlorobenzene, dms., c.l., frt. alld or dlvd E	lb.	.10½	—
dms., l.c.l., same basis	lb	11½	—
tanks, same basis	lb.	.08¾	—
Monoethanolamine, dms. c.l. dlvd. E	lb	.27½	—
dms., l.c.l., same basis	lb.	.29	—
tanks, same basis	lb.	.25	—
Monoethylalpnanaphthylamine (see N-Ethyl-a-naphthylamine)			
Monoethylamine, 70% aqueous solution, dms., c.l., dlvd E, 100% basis	lb.	.38½	—
dms., l.c.l. dlvd E 100% basis,	lb.	.40	—
tanks, dlvd. E., 100% basis	lb.	.35	—
Monoethylaniline (see N-Ethylaniline).			
Monoethylorthotoluidine (see N-Ethyl-o-toluidine)			
Monoisopropanolamine, dms., c.l., dlvd E	lb.	.27½-	—
dms., l.c.l. same basis	lb.	.29	—
tanks, same basis	lb.	.25	—
Monoisopropylamine, anhyd., dms., c.l., dlvd	lb.	.33½-	—
dms., l.c.l. same basis	lb.	.35	—
tanks, same basis	lb.	.31	—
Monomethylamine, anhyd., cyls., l.c.l. frt equald., 100% basis	lb	.30	—
tanks, 100% basis	lb.	.26	—
30-33% soln., ctns., c.l., frt. equald., 100% basis	lb.	.36	—
dms., l.c.l., frt. equald., 100% basis	lb.	.36½-	—
tanks, frt. equald. 100% basis,	lb	.26	—
40% soln., dms., frt. equald., 100% basis	lb.	.33	—
dms. l.c.l. frt equald., 100% basis	lb.	.33½-	—
tanks, frt. equald, 100% basis.	lb.	.26	—
Monopentaerythritol, tech., bgs., c.l., dlvd E	lb.	.31	—
bgs., l.c.l., dlvd. E	lb.	.32	—
Monopotassium glutamate, dms., 1,000-lb. lots, frt. alld	lb.	3.05	—
dms, 100-lb lots, same basis	lb	3.25	—
Monosodium glutamate, dms., 100 lbs., dlvd	lb.	1.00	1.15
Monosodium phosphate (see sodium phosphate, monobasic).			
Montan wax, Calif., refd., bgs	lb.	.27	.28
imp., crude, Bohemian, bgs.	lb.	.22	.24
German, bgs	lb.	.26	.27
Morphine, cns., 100-oz., f.o.b. works.	oz.	12.35	—
Morphine hydrobromide, cns., 100-oz., f.o.b. works	oz.	9.90	—
Morphine hydrochloride, NF, cns., 100-oz., f.o.b. works	oz.	9.90	—
Morphine sulfate, USP, cns., 100-oz., f.o.b. works	oz.	9.90	—
Morpholine, dms. c.l., dlvd. E	lb.	55¼-	—
dms., l.c.l., dlvd E	lb.	.56¼-	—
tanks, dlvd. E.	lb.	.52¼-	—
Muriatic acid (see Hydrochloric acid).			
Musk, syn., ambrette, fib. dms., 100-lb. lots	lb	4.40	4.90
cns., 25-lb. lots	lb.	4.50	5.00
Ketone, fib. dms., 100-lb. lots.	lb	4.60	5.10
cns., 25-lb. lots	lb.	4.70	5.20
Xylol, fib. dms., 100-lb. lots	lb.	1.26	—
cns., 25-lb. lots	lb.	1.40	—
Mustard seed, Danish yellow, bags.	lb.	.11½-	—
Montana, yellow, bgs	lb.	.10½-	—
Oriental, bgs.	lb.	.08	—
Mustard oil, syn. bots.	lb.	1.60	1.85
Myristic acid, bgs	lb.	.31	.35
tanks	lb.	.30½-	.32
Myrrh gum, cs	lb.	.55	—

N

Naphtha, high solvency (see Solvent naphtha, petroleum).			
Naphtha, petroleum, cleaner's (see Cleaner's naphtha).			
Naphtha, VM&P, petroleum, tankcars, New Jersey and New York	gal.	.19	—
Group 3	gal.	.13875-	—
Houston, Texas	gal.	.155	—
Naphthalene, crude, dom., 78°, tanks, same basis	lb.	.05	.06
imp., 78°, bgs., large lots	lb.	.09½	Nom.
Refd., indust., chipped, crushed, bgs., frt. equald	lb.	.12½-	—
tanks, same basis	lb.	.09¾-	.10¾
Refd., indust., balls, flakes, wholesalers, jobbers, bbls., c.l., same basis	lb.	.15½-	—
cs., 50 lbs., c.l., same basis.	lb.	.15¾-	—
1-lb. pkgs., c.l., same basis.	lb.	.18½-	—
a-Naphthol, dms., frt. alld.	lb.	1.00	—
b-Naphthol, tech., flake, bbls., c.l., works	lb.	.34	—
bbls., l.c.l., works	lb.	.36	—
Naphthol, ITR, red toner, bbls., works	lb.	5.00	—
1-Naphthol-3,6-disulfonic 8-amino acid (see H acid).			
1-Naphthol-4 sulfonic acid (see Nevile and Winther's acid).			
1-Naphthol-5-sulfome acid (see L acid).			
1-Naphthol-5-sulfonic 8-amino acid (see S acid).			
2-Naphthol-6,8-disulfonic acid (see Gamma acid).			
Naphthol sulfonic mixed acid (see Cleve's acid).			
a-Naphthylamine, dms., frt. alld	lb.	.50	—
b-Naphthylamine tech. flake, bbls., works	lb.	1.60	—
1-Naphthylamine-5-sulfonic acid (see Laurent's acid).			
2-Naphthylamine-4,8-disulfonic acid (see Cassella acid).			
2-Naphthylamine-1-sulfonic acid (see Tobias acid).			
a-Naphthylamine-6-sulfonic acid (see Broenner's acid).			
a-Naphthylamine-7-sulfonic acid (see F acid)			
Naringin, fib dms	lb.	8.50	—
Neatsfoot oil, 15° cold test, dms	lb.	.29	Nom.
20° cold test, dms	lb.	.28	Nom.
30° cold test, dms	lb.	.27	Nom.
Neocinchophen, USP, dms., frt. adjusted	lb.	7.00	8.00
Neomycin sulfate, fib dms., 1-kilo basis activity	gram.	.25	—
fib. dms., 100-999-gram lots, basis activity	gram	.30	—
Tech., fib. dms	gram.	.13½-	—
Neopentylglycol, dms., c.l., dlvd.	lb.	.32	—
dms., l.c.l., same basis	lb.	.33	—
Neroli oil, NF, French, bots.	lb.	425.00	575.00
Tunisian, bots.	lb.	400.00	—
Nerolin, cns.	lb.	2.45	2.85
Neville and Winther's acid, dms., frt. alld	lb.	1.30	—
Niacinamide (see Nicotinamide).			
Nickel acetate, bbls., dlvd	lb.	.68½-	.75½
Nickel carbonate, bbls., dlvd	lb.	.78¼-	.85¼
Nickel chloride, bbls., dlvd	lb.	.37	.45
Nickel formate, bbls., ton lots, frt. alld	lb.	.72	.73
Nickel metal, electro cathodes, cs., works	lb.	.74	—
Nickel nitrate, dms., frt. alld	lb.	.31½-	.33½
Nickel oxide, black, bbls	lb.	.85	—
Green, bbls.	lb.	.84	—
Nickel sulfate bgs., c.l., dlvd	lb.	.28	—
bgs., l.c.l., dlvd	lb.	.28½-	.30
Nicotinamide, USP, 50-kilo dm., frt. adjusted	kilo.	6.00	—
Nicotinamide hydrochloride, dms., frt. adjusted	kilo.	8.00	—
Nicotine sulfate, 40% dealers, 50-lb. dms. frt. alld	lb.	1.20	—
40% manufacturers, 500-lb. dms., frt. alld	lb.	1.05	—
Nicotinic amide, USP (see Nicotinamide).			
Niger seed, bgs	lb.	.10¼-	—
Nikethamide cbys.	lb.	5.00	—
Nitric acid, 36° Be., cbys., c.l., works E.	100 lbs.	5.75	—
cbys., l.c.l., works E	100 lbs.	6.03	6.63
38° Be., cbys., c.l., works E.	100 lbs.	6.25	—
cbys., l.c.l., works E.	100 lbs	6.55	7.35
40° Be., cbys., c.l., works, E.	100 lbs	6.75	—
cbys., l.c.l., works, E.	100 lbs.	7.05	7.85
42° Be., cbys., c.l., works, E.	100 lbs.	7.25	—
cbys., l.c.l. works E	100 lbs.	7.55	8.35
58.5 to 68%, HNO_3, tanks, works, 100% basis	100 lbs.	3.90	—
94½ to 95½% HNO_3, tanks, works, 100% basis	100 lbs.	4.90	—
CP, NF, consumer, cbys., extra, c.l., works	lb.	.18½-	—
cbys. extra, l.c.l., works.	lb.	.20	—
5-pint bots., extra, cs., c.l., same basis	lb.	.22½-	—
5-pint bots., extra cs., l.c.l., same basis	lb.	.24	.26
4-Nitro-2-aminophenol, tech., paste, dms., frt. alld	lb.	.99	—
m-Nitroaniline, cryst., dms., frt. alld	lb.	1.15	—
Paste, dms., frt. alld., 100% basis.	lb.	1.10	—
o-Nitroaniline, flaked dms. t.l., frt. alld	lb.	.49	—
dms., l.t.l., frt. alld	lb.	.51	—
o-Nitroaniline orange toner, kegs.	lb.	1.35	—
p-Nitroaniline, dms. frt. alld	lb.	.445	—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o-Nitroanisole—Para Toner

o-Nitroanisole, tech., tanks, frt. alld. lb. .36 • —
p-Nitroanisole, tech., solid, dms., frt. alld lb. .72 • —
Nitrobenzene, dbl. dist., dms., c.l., frt. alld lb. .13 • —
dms., l.c.l. frt. alld lb. .14 • —
tanks, frt. alld lb. .11 • —
p-Nitrobenzoic acid, dms., c.l., works lb. .63 • —
dms., l.c.l., works lb. .64 • —
Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 15-20, 30-40, 60-80, 125-175 seconds, bbls., c.l., works lb. .37½- —
bbls., l.c.l., same basis lb. .33½- .40½
18-20, cps., bbls., c.l., same basis lb. .39½- —
bbls., l.c.l. same basis lb. .40½- .42½
250-400, 600-1,000 seconds, bbls., l.c.l., same basis lb. .43 • .46
Spirit soluble, 30-35 cps., ¼, ½ seconds, bbls., c.l., same basis lb. .43 • —
bbls., l.c.l. same basis lb. .44 • .46
5-6 cps., 40-60 seconds, bbls., c.l., same basis lb. .42 • —
bbls., l.c.l. same basis lb. .43 • .45
Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable.
o-Nitrochlorobenzene, dms., c.l., frt. alld lb. .15 • —
dms., l.c.l., same basis lb. .16 • —
tanks, same basis lb. .13 • —
p-Nitrochlorobenzene, dms. lb. .26 • .27
2-Nitro-p-cresol, tech., dms., dlvd. lb. .88 • —
Nitroethane, dms., c.l., dlvd. E lb. .25 • —
dms., l.c.l., dlvd. E lb. .26½- —
tanks, dlvd. E lb. .22½- —
Nitroethane prices West of Rockies are 1c. higher.
Nitrogen solutions, tanks, frt. equald., N unit. 1.28 • —
Nitrogen tetroxide, indust., tankcars, f.o.b. Hopewell, Va. lb. .065 • —
Clys., t.l., min. 5 tons, same basis lb. .07½- —
Clys., l.c.l., .l.t.l., same basis lb. .15 • —
Nitrogenous process tankage, bulk, works, unit-ton. 4.50 • 5.00
Nitrogenous sewage sludge, bulk, f.o.b. Chicago, works, unit-ton. 3.50 • .50
Nitromethane, dms. t.l., dlvd. E lb. .25 • —
dms., l.t.l., dlvd. E lb. .26½- —
Nitromethane prices West of Rockies are 1c. higher.
1-Nitronaphthalene, bbls., frt. alld. lb. .31 • —
o-Nitrophenol, dms., works, frt. equald lb. .94 • —
p-Nitrophenol, dms., c.l., frt. alld. lb. .45 • —
dms., l.c.l., frt. alld lb. .47 • —
1-Nitropropane, dms., c.l., frt. alld. E. of Rockies lb. .23½- —
dms., l.c.l., same basis lb. .25 • —
tanks, same basis lb. .21 • —
2-Nitropropane, dms., c.l., frt. alld. E. of Rockies lb. .18½- —
dms., l.c.l., same basis lb. .20 • —
tanks, same basis lb. .16 • —
Nitropropane prices West of Rockies are 1c. per lb. higher.
m-Nitrotoluene, tech., dms., frt. alld. lb. .50 • —
o-Nitrotoluene, dms., c.l., frt. alld. lb. .15 • —
dms., l.c.l., frt. alld. lb. .16 • —
tanks, frt. alld. lb. .13 • —
p-Nitrotoluene, tech., cast, dms., c.l., works lb. .27½- —
dms., l.c.l., works lb. .28 • —
flake, dms., c.l., t.l., works lb. .27½- —
dms., l.c.l., works lb. .28 • —
m-Nitro-p-toluidine, dms. lb. 1.25 • —
Nonylphenol, dms., c.l., frt. alld. lb. .22 • —
dms., l.c.l. frt. alld lb. .23 • —
tanks, frt. alld lb. .19½- —
Nonylphenol prices on shipments to Western States are 2c. higher.
Nutmegs, East Indian, whole, bgs. lb. 1.36 • —
West Indian, bgs lb. 1.45 • —
Nutmeg oil, USP, dist., East Indian, cns lb. 9.50 -12.75
West Indian, cns lb. 9.50 -12.75
Nux vomica, bls lb. .20 • —
Powd., bbls., bxs lb. .20 • .22

O

Ocher (see Iron oxide yellow, nat.).
Ocotea cymbarum oil, dms lb. .48 • .55
Octane, indust., tanks, Bayonne, N.J. gal. .20 • —
Borger, Tex. gal. .15¾- —
1-Octanol, tech., dms., c.s., dlvd., Zone 1 lb. .43¾- —
dms., l.c.l., same basis, dlvd. Zone 1 lb. .45½- —
tanks, dlvd., Zone 1 lb. .41 • —
Octyl alcohol, perfumers' grade, bots. lb. 1.60 • 3.28
Octyl alcohol, tech. (see 1-Octanol, tech.).
tert-Octylamine, dms., c.l., t.l., f.o.b. works lb. .54½- —
dms., l.c.l., same basis lb. .55 • —
Octyl phenol, bgs., c.l., works lb. .22 • —
bgs., l.c.l., works lb. .22½- —
tanks, works lb. .21 • —
Octyl phenol in dms. 11c. higher.

OILS
Oil quotations are listed individually. For example, prices on Oil, coconut, may be found in the C's under Coconut oil.

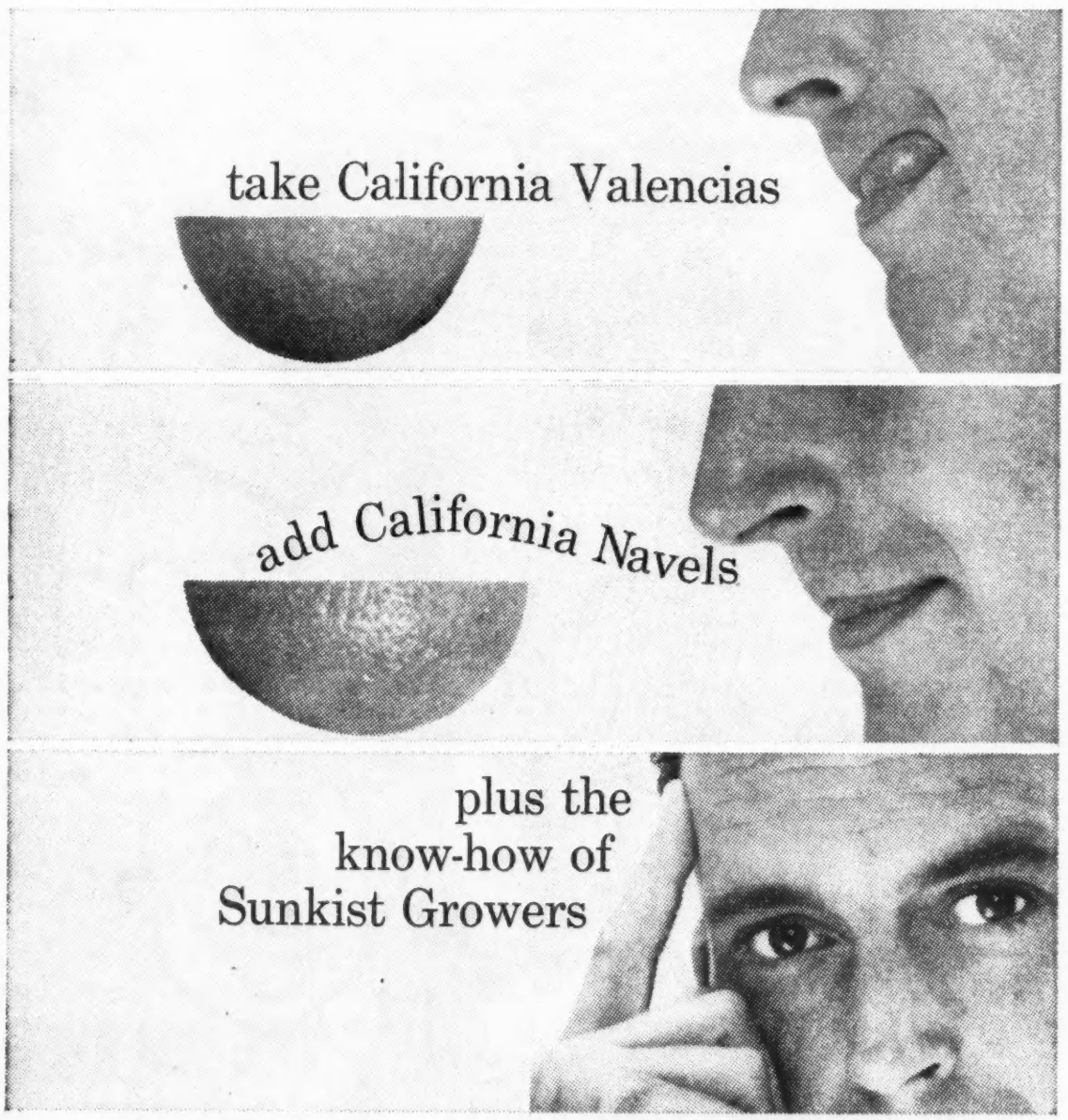
Oiticica oil, liq., dms. lb. .17 • .17¾
tanks lb. .15 Nom.
Oleic acid, dbl.-dist. (white), dms. lb. .17½- .20
tanks lb. .15 • —
S. d., dms lb. .16¼- .18¾
tanks lb. .13¾- —
Oleo oil, extra, dms lb. .14 • .14¾
Oleostearine, dms. lb. .13 • .13¾
Oleum (see Sulfuric acid, fuming).
Olibanum gum, siftings, cs. lb. .13 • .20
Tears, cs. lb. .22 • .30
Olibanum oil, bots. lb 5.00 • 7.65
Extra fine, bots lb 8.00 • 9.50
Olive oil, edible, dms. spot, duty-paid gal. 2.30 • 2.40
Olivine, crude, works ton 12.00 • —
20 mesh, works ton 15.00 • —
100 mesh works ton 20.00 • —
Opium gum, USP, cns., 25-lbs., f.o.b. works oz. 19.20 • —
gran., cns., 50 lbs., same basis. oz. 21.65 • —
powd., cns., 50 lbs., same basis. oz. 21.65 • —
Orange oil, expressed USP, Brazilian, cns., dms lb. No stocks.
California, cns., dms lb. .70 • .90
Florida, cns., dms. lb. .50 • .60
Messina, cns. lb 3.25 • 5.00
West Indian, bitter cns. dms. lb 2.50 • 3.25
Sweet, dist., cns., dms lb. .60 • —
Orange peel, bitter, Haitian, bls lb. .18 • .20
Sweet lb. .28 • .30
Origanum oil, Spanish, cns lb 1.80 • 2.30

ORANGE PIGMENTS
Orange pigment quotations are listed individually. For example, prices on Orange, chrome, may be found in the C's under Chrome orange.

Orris root, Florentine, bls. lb. .55 • —
powd., bbls., bxs. lb. .65 • —
Verona, bls. lb. .35 • —
powd., bbls., bxs. lb. .45 • —
Orthoanisidine (see o-Anisidine).
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde).
Orthochloroaniline (see o-Chloroaniline).
Orthochlorobenzoic acid (see o-Chlorobenzoic acid).
Orthochloroparanitroaniline (see 2-Chloro-4-nitroaniline).
Orthochlorophenol (see o-Chlorophenol).
Orthocresol (see o-Cresol).
Orthocresotinic acid (see 2,3-Creosotic acid).
Orthodichlorobenzene (see o-Dichlorobenzene).
Orthonitroaniline (see o-Nitroaniline).
Orthonitrochlorobenzene (see o-Nitrochlorobenzene).
Orthonitroparachlorophenol (see 2-Nitro-4-Chlorophenol).
Orthonitrophenol (see o-Nitrophenol).
Orthonitrotoluene (see o-Nitrotoluene).
Orthophenetidine (see o-Phenetidine).
Orthophenylphenol (see o-Phenyl phenol).
Ortho-tertiary amylphenol (see o-tert-Amylphenol).
Orthotolidine (see o-Tolidine base).
Orthotoluidine (see o-Toluidine).
Ouabain, USP, bots., gram 3.00 • 4.00
Ouricury wax, crude, bgs lb. .60 • .61
Refd., pure, bgs. lb. .68 • .69
Oxalic acid, bgs., dms., c.l., works, lb. .18 • .18¾
bgs., dms., 10,000-lb. lots, works, lb. .18¼- .18¾
bgs., dms., smaller lots, works, lb. .19¼- .19¾
b-Oxynaphthoic acid, pigment manufacture, dms., frt. alld. lb. .812 • —
Dyestuff manufacture, dms., same basis lb. 1.03 • 1.14
Oxyquinolin sulfate, cns., 100-lb. lots, works, lb. 4.75 • 5.00
cns., smaller lots, works lb. 4.92 • 5.17

P

Palm oil, clarif., dms. lb. .14 • .15
tanks lb. .11¾- —
Palm oil acid, dist., dms. lb. .15¾- .18¾
tanks lb. .13¾- .14¾
Palmarosa oil, cns lb. 4.45 • 6.00
Papain, powd., bots lb. 5.50 -10.00
Papaverine hydrochloride, nat. or syn., USP, cns. 25-oz. to 100-oz. lots oz. 5.00 • —
cns., smaller lots oz. 5.05 • 5.20
Papaverine sulfate, nat. or syn., USP, cns., oz. 7.10 • 7.35
Paprika, Bulgarian bgs lb. .34 • .35
Hungarian, bgs. lb. .32 • —
Spanish, bgs. lb. .50 • —
Yugoslavian, bgs. lb. .34 • —
Para-aminobenzoic acid (see p-Aminobenzoic acid).
Parachlorobenzoic acid (see p-Chlorobenzoic acid).
Paramethylphenylcinchonic acid (see Neocinchophen).
Paranitrobenzoic acid (see p-Nitrobenzoic acid).
Paratoluidinemetasulfonic acid (see p-Toluidine-m-sulfonic acid).
Para-aminophenol (see p-Aminophenol).
Parachloro-orthonitroaniline (see 4-Chloro-2 nitroaniline).
Para-anisidin (see p-Ansidine).
Parachloraniline (see p-Chloraniline).
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).
Parachlorophenol (see p-Chlorophenol).
Paracresol (see p-Cresol).
Paradibromobenzene (see p-Dibromobenzene).
Paradichlorobenzene (see p-Dichlorobenzene).
Para toner, red, bbls. lb. 1.36 • —
Chlorinated, kgs. lb. 1.35 • —



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It takes just the right proportion of the rich oil of flavorful California Valencias ...plus the aromatic oils of deep-colored navels...*and* the unmatched experience and skill of the Sunkist Growers in citrus product manufacture, to produce the best orange oil for you – Exchange Brand, U.S.P.

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Ask your distributor for Exchange Brand Orange Oil – in the sealed container. It adds so little to the cost of finished goods, you cannot afford to pay less.

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Orange Oil U.S.P.
California Cold-pressed
Sunkist Growers
PRODUCTS SALES DEPARTMENT • ONTARIO, CALIF.
Distributed in the U.S. and Canada by:
Dodge & Olcott, Inc.
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Fritzsche Brothers, Inc.
76 Ninth Ave., New York 11, N.Y.
Ungerer & Company, Inc.
161 Avenue of the Americas, New York 13, N.Y.
Inquiries from countries other than U.S. and Canada should be directed to Sunkist Growers, Products Sales Department.

Paraffin, crude, scale, white, 123°-127°F. ASTM, tanks, refy.	lb.	.0655	—
Paraffin, fully refd., 122°-124°F, ASTM,, tanks, refy	lb.	.0765	—
125°-127°F, ASTM, tanks, refy.	lb.	.0763	—
130°-132°F, ASTM, tanks, refy.	lb.	.0763	—
132°-134°F., ASTM tanks, refy.	lb.	.0765	—
135°-137°F., ASTM, tanks, refy	lb.	.0765	—
AMP temperatures are an arbitrary 3°F higher than ASTM			
Paraffin oil, pale, 100-110 vis., at 100°F., tanks, east coast	gal.	.14	—
Paraffin wax (see Paraffin)			
Paraformaldehyde 91%, flake, bgs., c.l., frt. alld	lb.	.10	—
bgs., l.c.l., frt. alld	lb.	.12	.13
91%, powd., bgs., c.l., ex whse	lb.	.1715	—
bgs., l.c.l., ex whse	lb.	.1865	—
USP-X, fib dms., c.l.	lb.	.19	—
fib dms., 1,000-lb. lots	lb	.20	—
fib. dms., smaller lots	lb.	.21½	—
Paraldehyde, tech., 98%, 55-gal. dms., t.l., dlvd	lb.	.14	—
55-gal. dms., l.c.l., dlvd	lb.	.15	—
tanks, dlvd	lb.	.11½	—
Paranitroaniline (see p-Nitroaniline).			
Paranitrochlorobenzene (see p-Nitrochlorobenzene)			
Paranitrotoluene (see p-Nitrotoluene.			
Paranitrophenol (see p-Nitrophenol).			
Paraphenetidine (see p-Phenetidine).			
Paraphenylenediamine (see p-Phenylenediamine)			
Paraphenylphenol (see p-Phenylphenol).			
Para-tertiary-amylphenol (see p-tert Amylphenol)			
Para-tertiary butylphenol (see p-tert-Butylphenol)			
Parathion ethyl, dms. frt. alld.	lb.	.84	—
Parathion prices 2c per lb. higher in West			
Paratoluenesulfonamide (see p-Toluenesulfonamide)			
Paris green dealers 100 lb. dms., frt. alld	lb.	.45	—
Passion flower herb, bls	lb.	.45	.50
Patchouli oil, imp., cns.	lb.	5.10	6.25
Peach kernel oil, USP (see Apricot kernel oil)			
Peacock blue fugitive, 100% color strength, 250-lb. bbls., dlvd E. of Rockies	lb.	1.00	—
Peacock blue price 1c. higher W of Rockies			
Peanut meal, 45% old process, bgs., f.o.b., mills	ton	55.00	56.00
Peanut oil, crude, tanks, f.o.b. mills	lb.	.16	—
Refd., dms.	lb.	.21¼	.21½
tanks	lb.	.19¼	—
Pectin dom. NF, citrus, powd. bbls.	lb	2.05	2.06
Dom., tech., powd., 150 jelly grade, bbls	lb.	1.28	—
Imp., Danish, bbls. ex whse	lb.	1.23	—
Pelargonic acid, dms., c.l., dlvd	lb.	.25	—
ton lots, same basis	lb.	.27½	—
tanks, same basis	lb.	.23½	—
Penicillin potassium cryst., bulk, 1,000,000 units.		.021	—
Penicillin procaine cryst., bulk, 1,000,000 units.		.023	—
Pennyroyal oil USP, imported, cns.	lb.	2.25	3.10
Pentachlorophenol, bgs., c.l., t.l., works, frt equald	lb.	.21	—
bgs., l.c.l., same basis	lb	22½	.29
Pentachlorophenol in dms 1c. higher.			
Pentaerythritol, tech., bgs., c.l., dlvd	lb.	.31	—
bgs., l.c.l., dlvd	lb.	.32	—
Pentaerythritol, di-and tri-isomers (see Dipentaerythritol and Tripentaerythritol)			
Pentane, indust. tanks, Tex. refy.	gal.	.14	—
Pentobarbital, dms., 100 lbs. or more	lb	3.00	—
Pepper, black, Malabar, bgs.	lb.	.58	—
Lampong, bgs.	lb.	.59	—
Red, Funtuas, bgs	lb.	.32	—
Japanese, Hontoka, bgs	lb.	.37½	—
Santaka, bgs.	lb.	.31½	—
Sudanese, bgs.	lb.	.36	—
White, Muntok, bgs.	lb.	.87	—
Peppermint leaves, dom., USP bls., dms	lb.	.70	.75
Imp., USP., bls	lb.	.85	—
Peppermint oil, nat., dms	lb.	4.00	4.60
Redist., USP, dms.	lb.	4.25	5.25
Perchloroethylene, dms., c.l. or t.l., dlvd	lb.	.13½	—
dms., l.c.l., dlvd	lb.	.15¼	—
tanks, dlvd.	lb.	.11¾	—
tanktruck, 1,000 gal. min. dlvd.	lb.	.12¼	—
Peri acid, dry, bbls., frt. alld	lb.	1.60	—
Paste, bbls frt. alld	lb.	1.55	—
Peru balsam, dms.	lb.	1.30	1.45
Persic oil, USP (see Apricot kernel oil).			
Petitgrain oil, South American, cns., dms	lb.	2.50	3.25
Petrolatum, cream, dms., c.l., refy.	lb.	.08125	—
dms., l.c.l., dlvd.	lb.	.10125	.11375
tanks, refy.	lb.	.05875	—
Extra amber, dms., c.l., refy.	lb.	.07125	—
dms., l.c.l., dlvd.	lb.	.09125	.10375
tanks, refy	lb.	.04875	—
Lily white, dms., c.l., refy	lb.	.08625	—
dms., l.c.l., dlvd.	lb.	.10625	.12
tanks, refy	lb.	.06733	—
Petrolatum, USP, snow white, dms., c.l., refy.	lb.	.09125	—
dms., l.c.l., dlvd.	lb.	.11125	.125
tanks, refy.	lb.	.06875	—
USP, soft yellow, dms., c.l., refy.	lb.	.07125	—
dms., l.c.l., dlvd.	lb.	.095	.10375
tanks, refy.	lb.	.04875	—
Petroleum pitch (see Asphalt, petroleum)			

PETROLEUM PRODUCTS

Petroleum product quotations are listed individually. For example, prices on Petroleum, mineral spirits, may be found in the M's under Mineral spirits, petroleum.

Petroleum sulfonate, oil soluble, 60-62% sulfonic content, non-ret. dms., c.l., works	lb.	.16½	.18¾
non-ret. dms., l.c.l., works	lb.	.17½	.19
tanks, works	lb.	.14½	.17
50-55%, sulfuric content, non-ret. dms., c.l., works	lb.	.16	—
non-ret. dms., l.c.l., works	lb.	.17	—
tanks, works	lb.	.13	—
o-Phenetidine, dms. c.l., frt. alld. E	lb.	.91	—
dms., l.c.l., same basis	lb.	.93	—
p-Phenetidine, dms., c.l., frt. alld.	lb.	1.05	—
dms., same basis	lb	1.08	—
Phenobarbitol, USP, dms., 100-lbs., frt. alld	lb.	3.25	—
Phenobarbital-Sodium (see sodium phenobarbital).			

Phenol, 90-92% (cresol 8-10%) non-ret. dms. frt alld. E of Rockies	lb.	.16¾	—
non-ret. dms. l.c.l. same basis.	lb.	.17¾	—
tanks, same basis	lb.	.14¾	—
82-84% (cresol 16-18%) non- ret. dms., c.l., same basis	lb.	.16½	—
non ret. dms. l.c.l. same basis.	lb.	.17½	—
tanks, same basis	lb.	.14½	—
30°C, or above, tar dist., non-ret. dms., c.l., same basis	lb.	.18	—
non-ret dms. l.c.l. same basis.	lb.	.19	—
tanks, same basis	lb.	.16	—
USP, syn., dms., c.l., t.l., frt. alld	lb.	.18½	—
dms., same basis	lb.	.20½	—
tanks, same basis	lb.	.16½	—
Phenolphthalein, USP or yellow, 250-lb dm. 2,000 lbs. frt. alld.	lb.	1.30	—
250-lb. dm., same basis	lb.	1.35	—
Phenothiazine drench fib dms., t.l., dlvd	lb.	.44	—
fib dms. t.t.l., same basis	lb.	.47	—
NF, fib. dms., t.l., same basis	lb.	.43	—
fib dms. t.t.l. same basis	lb.	.46	—
Phenyl acetate, dms., 100-lb. lots, works	lb.	.50	—
Phenyl salicylate (see Salol).			
Phenylacetaldehyde, soln., 50%, bots	lb.	2.35	—
100%, bots.	lb	4.00	4.65
Phenylacetic acid, pure, cryst. cns.	lb.	1.25	1.75
dl-Phenylalanine, dms works	lb.	27.00	37.50
l-Phenyl-3-carbethoxy pyrazolone-5, fib dms 200-lb lots dlvd E.	lb	3.45	—
fib. dms., smaller lots, dlvd. E	lb	3.80	—

N-Phenyldiethanolamine, dms., c.l., dlvd. E	lb.	.41	—
dms., l.c.l., dlvd. E	lb.	.42¼	—
tanks, dlvd. E	lb.	.38½	—
m-Phenylenediamine, dms. frt. alld.	lb.	1.10	—
o-Phenylenediamine, coml., fib. dms., 100 to 1,000 lbs., works	lb.	1.70	1.80
p-Phenylenediamine, tech., dms., works	lb.	1.55	—
Phenylethanolamine, dms., c.l., works	lb.	.75½	—
dms. l.c.l., same basis	lb.	.77	—
Phenylethyl acetate bots.	lb.	1.25	1.40
2-Phenylethyl alcohol, extra, dms.	lb.	1.14	1.50
Standard dms.	lb.	1.10	1.60
b-Phenylethylamine, dms., 20,000 lbs. or more frt. alld	lb.	1.50	—
dms. smaller lots, frt. alld	lb.	1.70	1.85
Phenylethylphenyl acetate bots	lb.	4.00	4.25
Phenylglyconic acid (see Mendelic acid).			
Phenylhydrazine, 97%, 450-lb. dms.	lb.	1.45	—
1-Phenyl-3-methyl pyrazolone-5, fib. dms., 250-lb lots, dlvd. E	lb.	1.80	—
fib. dms. smaller lots, dlvd E	lb.	2.10	—
o-Phenylphenol, dms., l.c.l., works	lb.	.48	.50
p-Phenylphenol, bgs., c.l., works	lb.	.38½	—
bgs., l.c.l., works	lb.	43	—
Philippine copal gum, pale, chips, bgs	lb.	.23¾	.26
nubs, bgs.	lb.	33¼	.37
seeds, bgs.	lb.	20	Nom
sorts, bgs.	lb.	.20	.24

Phloroglucinol, coml., fib. dms., works	lb	6.40	—
CP, bots., works	lb	17.75	—
Tech., fib dms., works	lb	10.45	—
Phloxin red toner (see Eosin red toner)			
Phosgene, ret. cyls., works	lb	15½	—
Phosphate, defluorinated (see under D)			
Phosphate rock, Curacao, Atlantic ports New Orleans	ton	48.00	—
Phosphate rock, Florida, land pebble, run-of mine, washed, dried, unground 66-68%, b.p.l., bulk, c.l. mines	short-ton	4.798	—
68-70%, b.p.l., bulk, c.l., same basis	short-ton	5.148	—
70-72% b.p.l., bulk, c.l., same basis	short ton	5.728	—
74-75%, b.p.l., bulk, c.l., same basis	short ton	6.628	—
76-77% b.p.l. c.l. bulk, same basis	short ton	7.518	—
Above Florida prices are based on fuel oil at $2.37 per bbl. and labor at $1.59.			
Phosphoric acid, food grade, 75%, cbys., c.l., works, E., frt. equald	100 lbs.	7.00	—
cbys., l.c.l., same basis	100 lbs	7.25	7.75
tanks, t.w., works	100 lbs.	5.60	—
80%, cbys., c.l., frt. equald	100 lbs	7.85	—
cbys., l.c.l., works	100 lbs.	8.10	9.35
tanks, t.w., works	100 lbs.	6.00	—

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For all industrial uses

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LIQUID — Iron-free, a clear water-white solution of 45-50%. In tank cars and in returnable and nonreturnable 675-lb. drums.

LIQUID — Special low-chloride, iron-free grade — 45-50%. In tank cars and in returnable and nonreturnable 675-lb. drums.

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GRANULAR (BROKEN) — 90%. In 100-, 210- and 425-lb. drums.

AMERICAN SELECTED WALNUT — In 100-, 210- and 425-lb. drums.

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MAGNESIUM OXIDE 99.0+%

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SULPHATE OF POTASH — 95% K_2SO_4

LIQUID CHLORINE — Bulk in Tank Cars

HYDROFLUOSILICIC ACID — For Water Fluoridation.

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Phosphoric acid, NF, 85%, cbys, c.l., works 100 lbs. 8.50 - —
cbys., t.c.l., works 100 lbs. 8.75 9.00
tanks, t.w., works 100 lbs. 6.65 - —
Phosphorus, amorph., red, dms., t.l. works lb. .55 - —
dms smaller lots, works lb. .56 - .57
white (yellow) solid dms., c.l., works, frt equald lb. .20 - .20½
dms. t.c.l., works, frt. equald lb. .21½- —
tanks, works, frt equald lb. .19 - —
Phosphorus oxychloride, dms., c.l., works lb. .14 - —
dms., t.c.l., works lb. .15 - —
tanks, works lb. .12½- —
Phosphorus pentasulfide, powd., dms., c.l works lb. .13½ —
dms t.c.l works lb. .14½ .15½
Solid, dms., c.l., works lb. .11½- —
dms t.c.l., works lb. .12¼ .13½
Phosphorus pentoxide, dms., c.l., works lb. .1375- .1475
dms., t.c.l., works lb. .1475- .1675
Phosphorus sesquisulfide dms., cs., c.l., works lb. .38 —
dms., t.c.l., works lb. .39 .40
Phosphorus trichloride, dms., c.l., works lb. .14 —
dms., t.c.l., works lb. .15 —
tanks, works lb. .12½- —
Phthalic anhydride bgs. c.l. works, frt. equald lb. .17 - .21
bgs., t.c.l., same basis lb. .18 - .22
tanks, same basis lb. .16½- .20½
Phthalimide, 97-98%, dms., frt. alld lb. 65 - —
Phthalocyanine blue, full strength, bbls dlvd E of Rockies lb 2.90 - —
Resinated, bbls, same basis lb 2.75 - —
Wafer dispersable, bbls, same basis lb 1.52 - —
Phthalocyanine blue prices 1c. higher W. of Rockies
Phthalocyanine green toner, bbls., works lb 3.35 - —
Resinated, bbls lb 3.00 - —
Water dispersable, bbls lb 1.71 - —
Phthalocyanine green prices 1c. higher W. of Rockies
Phthalylsulfacetamide, fib dms., 1,000 lb lots or more lb 5.00 - —
NF fib dms lb 5.20 - —
α-Picoline dms. c.l., works, frt. equald lb. .43 .43½
dms., t.c.l. works, frt equald lb. .44 —
tanks, same basis lb. .415 .422
b-Picoline 98% dms. t.l. works lb 1.05 - —
dms., t.c.l., same basis lb. 1.15 - —
tanks, same basis lb. .95 - —
b,g-Picoline 5°C dms. c.l., works lb .32½- —
dms t.c.l. works lb .33 - —
g-Picoline, dms., f.o.b., works lb 1.60 - —
tanks, t.l. same basis lb 1.50 - —
Picric acid, NF bbls lb .85 - —
Tech bbls lb .44 - —
Pigment green B, kgs lb. 1.50 - —
Pilocarpine hydrochloride, USP, bot 5.25 - —
Pilocarpine nitrate USP bots. vials oz 5.15 - —
Pimento, Jamaican, bgs lb 68 - —
Mexican, bgs lb .57 - —
Pimento berry oil, NF dms. lb 3.75 9.25
Pimento leaf oil, crude, cns lb. 2.20 - 2.60
Pine oil, dest dist. dms., t.c.l. works lb. .15 - —
dms. t.c.l ex whse New York. lb. .173 —
Steam-dist., dms., ex whse., New York lb. .185 - —
dms. dlvd lb .188 —
Pineneedle oil, Siberian (see Abies Siberica oil)
Pinetar oil comt. dms. c.l. works. lb .0561- —
dms., t.c.l. works lb. .0634- —
dms., c.l. ex whse New York. lb. .0745- —
tanks, works lb. .046 —
NF, rectified, dms., incl., t.c.l., works, South lb. .40 - —
dms., t.c.l. ex whse New York lb. .41½- —
Refd., dms., incl. t.c.l. works lb. .35 - —
dms. incl t.c.l., ex whse New York lb .36½- —
Pink root, bls lb 1.75 —
Piperazine, anhyd., dms., c.l., frt. alld lb 1.80 - —
dms., t.c.l., same basis lb. 1.85 - —
Piperazine citrate, 36% dms., 1,000 lbs. or more frt. alld lb. 1.15 - —
Piperazine dihydrochloride 51% dms. 1,000 lbs or more frt alld lb. 1.23 - —
Piperazine hexahydrate 44% dms., 1,000 lbs or more, frt. alld lb. .86 - —
dms., 200-900 lbs., frt. alld lb. .89 - —
Piperazine phosphate, 42% dms., 1,000 lbs. or more frt. alld lb 1.06 - —
Piperidine, dist. 98% min. dms. frt. equald lb 2.60 - —
Piperonyl butoxide dms dlvd E lb 4.50 5.05

PITCHES
Pitch quotations are listed individually. For example, prices on Pitch, soybean, may be found in the S's under Soybean pitch.

Plaster of Paris (see Gypsum)
Platinum metal, works oz.81.00 -85.00
Poison ivy oil lb .45 .50
Podophyllum resin, NF, dms. lb.12.50 - —
Poke root bls lb .19 .22
Polymyxin, bots., bulk, 50 billion units or more 1,000,000 units. .52 - —
bulk, bots., 25-50 billion units. 1,000,000 units. .54 - —
bulk, bots., 1-25 billion units. 1,000,000 units. .56 - —
Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works lb .42 - —
dms., 10,000-20,000 lb. lots, works, lb. .44 - —
dms., smaller lots, works lb. .47 .49
Polyoxyethylene sorbitan tristearate, dms., 20,000 lb. lots, works, lb. .42 - —
dms., 10,000-20,000-lb. lots, works lb. .44 - —
dms., smaller lots, works lb. .47 - .49
Pontianak copal gum, chips, bgs. lb. .25 - —
Nubs bgs lb .37 40
Poppy seed: Argentine, bgs. lb No stocks.
Dutch, bgs. lb. .22 - —
Danish, bgs. lb. .20½- —
Polish, bgs. lb. .20 - —
Turkish, bgs. lb. .17½- —
Potash, caustic, liq., 45% basis, dms., c.l., works 100 lbs 4.25 - —
dms., t.c.l., same basis 100 lbs 5.05 - —
tanks same basis 100 lbs 3.70 - —
reg., flake, 88-92%, dms., c.l., same basis 100 lbs. 9.15 - —
reg., flake, 88-92%, dms., t.c.l., same basis 100 lbs.10.20 - —
solid, 88-92%, dms., c.l., works, 100 lbs. 8.70 - —
dms t.c.l. works 100 lbs 9.75 - —

Potassium acetate, NF 200-lb. dm., f.o.b works E lb. .31 - —
Potassium bicarbonate, USP, gran. dms lb. .22 - —
USP, powd., dms. lb. .24 - —
Potassium bichromate, gran., bgs., c.l., t.l., works lb. .18 - —
bgs., t.c.l., works lb. .18½- .19¼
Potassium bichromate in dms. ¾c higher.
Potassium bitartrate, NF, gran., powd., 100-lb. bgs., c.l., frt. equald lb. .37 - —
100-lb. bgs., 5,000 lbs. 1 shipt., same basis lb. .38 - —
100-lb. bgs., smaller lots, same basis lb. .40 - —
Potassium borohydride powd., dms., works lb 16.00 -22.00
Pelletized postassium borohydride $1.25 per lb higher in 1,000-lb. lots.
Potassium bromate, dms., 1,000-lb. lots or more, works lb. .50 —
dms., smaller lots, works lb. .52 .62
Potassium bromide, USP, gran. bbls., kgs lb. .39 .40
Potassium carbonate, dom., NF, gran., bbls. dms lb. .20 —
Dom., tech. powd., bbls., dms lb. .21 - .22
Dom., calcinated, bgs., c.l., works, 100 lbs. 8.50 - —
bgs., t.c.l., same basis 100 lbs. 9.55 - —
Dom., hydrated, 83-85%, bgs., c.l., works 100 lbs. 7.10 - —
bgs. t.c.l., works 100 lbs 8.15 - —
Potassium chlorate, cryst., dms., c.l., works lb .12¼- —
dms., t.c.l., works lb .13½ .14½
Powd., dms., c.l., works lb .12¾ —
dms., t.c.l., works lb. .14 .15
works lb .12¼ —
NF, cryst., dms., 2,000 lbs. or more, works lb. .16¾- —
NF gran. 25-lb metal dms lb. .36 —
NF powd. dms., 2,000 lbs or more, works lb. 17¼ —
Potassium chloride indust., 99.9% KCL, bulk, c.l works ton 29.00 - —
bgs. c.l. works ton 33.50 - —
99.3% KCL bulk, c.l., works ton 27.00 - —
bgs. c.l. works ton 31.50 - —
USP, cryst., dms. lb. .20 - .22
USP gran., dms. lb. .21 .23
USP, powd., dms. lb. .24 .26
Potassium chloride, agricultural (see Potassium muriate)
Potassium chromate tech., dms., works lb. .50 .51
Potassium citrate, NF, gran., 250-lb. dm., f.o.b. works E lb. .43 - —
powd., 250-lb. dms. same basis. lb. .46 - —
Potassium cyanide, dms. 20,000-lb. lots or more, works lb. 42½- —
dms. 2,000-19,999 lb. lots, works. lb. .43 —
dms., smaller lots, works lb. .44 44½
Potassium dichromate (see Potassium bichromate)
Potassium ferricyanide, dms., ton lots, works lb. .50 - —
dms., smaller lots, works lb. .65 - —
Potassium ferrocyanide, dms., ton lots lb. .24½- —
dms., smaller lots lb. .29 —
Potassium fluoborate fib dms., c.l., works lb. .30 - —
fib dms t.c.l. works lb .31 - —
Potassium fluoride, dms. works lb. .37 .38
Potassium gluconate, 100-lb. dm., f.o.b works E lb 1.67 - —
Potassium guaiacol sulfonate, NF, dms lb 2.10 2.30
Potassium hydroxide tech (see Potash caustic).
Potassium hydroxide, USP, pellets, 100-lb dms 1 to 100-dm. lots lb. .33½ .38
Potassium hypophosphite, NF, fib. dms. 1,000-lb lots lb. 1.38 - —
Potassium iodide USP, cryst., gran., or powd., 250-lb dm., f.o.b. works lb. 1.40 - —
Potassium manure salt, 22% K₂O, bulk, c.l., works unit-ton. .17 - .1705
Potassium metabisulfite, gran., dms. lb. .16 - —
Powd., dms. lb. .27 - —
Potassium muriate, standard, bulk, c.l., works unit-ton. .34½- .36½
bagged, 60% minimum K₂O, same basis ton.25.60 -26.80
Gran., bulk, c.l., works unit-ton. .35 - .37
bagged., 60% minimum K₂O, same basis ton.25.90 -27.10

Inside prices apply to material contracted for prior to July 1, 1959.

Outside prices apply to material contracted for after that date but also for delivery during the current month.

Potassium nitrate, NF, cryst., bbls., 20-ton lots 100 lbs.17.00 —
bbls. smaller lots 100 lbs 18.00 -19.00
NF, gran., bgs. 20-ton lots 100 lbs 9.50 —
bgs. smaller lots 100 lbs.11.00 -12.00
NF, powd., bgs., 20-ton lots.100 lbs.10.50 - —
bgs. smaller lots 100 lbs.12.00 -13.00
Potassium oxalate, neutral, tech., fine gran., powd. 300-lb. dm., f.o.b. works E lb. .32 - —
Potassium pentaborate, gran., dms., c.l., works ton 219.50 - —
dms. ton lots, ex whse ton 311.00 - —
dms., smaller lots, ex whse ton 316.00 - —
Powdered potassium pentaborate $10 per ton higher
Potassium perchlorate, dms., c.l., works lb. .18½- —
dms., t.c.l., works lb. .19 .20
Potassium permanganate, coml., kgs., works lb. .25 - .33
USP, dms., works lb. .29 - .35
Potassium persulfate, dms., c.l., works lb. .17½ —
dms., t.c.l., works lb. .18 .21
Potassium pyrophosphate, tetrabasic, dms., works lb. .15½- 18½
Potassium prussiate red (see Potassium ferrocyanide).
Potassium prussiate yellow (see Potassium ferro-cyanide).
Potassium silicate, electrical grade, 30° Be, 1:2.0, dms., c.l., works 100 lbs. 6.50 - —
dms., t.c.l., 5 dm. lots or more, works 100 lbs. 7.25 - 7.65
tanks, works 100 lbs. 6.15 - —
40.5° Be, 1:2.1, dms., c.l., works, 100 lbs. 5.95 - —
dms., t.c.l., 5 dm. lots or more works 100 lbs 6.70 - —
tanks, works 100 lbs 5.60 - —

Potassium silicate, glass grade, bgs., c.l., works 100 lbs.17.30 -18.00
bgs. t.c.l. works 100 lbs 17.80 —
Soln. 29° Be, 1:2.5, dms., c.l., works 400 lbs. 4.95 —
dms. t.c.l., 5-dm lots or more, works 100 lbs 5.70 - —
tanks, works 100 lbs 4.60 - —
Potassium silicofluoride, bgs., works lb .09½- 10
Potassium silicofluoride in drums, 0.4c per lb higher
Potassium stannate, dms., frt alld. E lb. .776 - .848
Potassium sulfate, agricultural, bulk, c.l., works unit-ton. .67½- .69½

Inside price applies to tonnage contracted for prior to July 1, 1959

Outside price applies to tonnage contracted for after that date but also for delivery during the current month

Potassium sulfate, NF VII, cryst., dms lb. .31 33
NF VII, gran., dms lb. .18½- —
NF VII, powd., dms lb. .16 .17
Potassium sulfocyanate, NF, cryst. (see Potassium thiocyanate)
Potassium thiocyanate, NF, cryst., dms. works lb. .96 .98
Tech., dms., works lb. 77 79
Potassium titanate, ctns. c.l. works. lb. .16¼- —
ctns. 5-ton lots, works lb. .16½- —
ctns., 1-ton lots or less, works lb .16¾ —
Potassium-magnesium sulfate, basis 40% K₂SO₄ and 18% MgO, bulk, works, base price ton.13.45 - —
bulk works, July forward ton.14.00 - —
Potassium-sodium tartrate, NF, gran. or powd. 250-lb dms. c.l., f.o.b. works E lb. .42½- —
250-lb dms. 5,000-lb. lots, same basis lb. .43 - —
250-lb. dms. same basis lb. .43½- —
Potassium-titanium fluoride, fib, dms works lb. .39 40
Potassium-zirconium fluoride, fib, dms. c.l. works lb .50 —
fib dms t.c.l works lb .52½ 55
Pregnenolone, bots. gram. No prices
Pregnenolone acetate, bots. gram. No prices.
Procaine hydrochloride, USP, dms., 1,000-lb. lots, frt. alld lb. 2.60 - —
dms 100-500 lb lots lb 2.95 3.15
Progesterone USP bots. gram No prices.
Progesterone acetate bots. gram No prices.
Propenyl guaethol, dms lb.24.30 -27.00
b-Propriolactone, dms., c.l., t.l., f.o.b. works lb. .89 - —
dms., t.c.l., t.t.l., same basis lb. .90 - —
tanks, same basis lb. .87 - —
Propionic acid syn. pure dms., c.l., works lb .23¼ —
dms., t.c.l., works lb. .24¾- —
tanks, works lb. .20¾- —
n-Propyl acetate, dms., c.l., dlvd. lb. .14¾- —
dms., t.c.l., dlvd lb. .16¼- —
tanks, dlvd lb. .12¼ —
n-Propyl alcohol, dms., c.l., dlvd. lb. .14 - .15
dms., t.c.l., dlvd. lb. .15½- .16½
tanks, dlvd. lb. .11½- .12½
n-Propyl gallate, dms., 100 to 2,000-lb lots, works lb 3.90 4.40
n-Propyl-p-hydroxybenzoate, USP, dms lb 2.30 2.40
Propyl thiouracil, bots., 50 kilo lots or more kilo.55 00 —
bots. smaller lots kilo.55 10 -55.30
n-Propylamine, dms., c.l., dlvd lb. 1.24 - —
dms t.c.l., same basis lb. 1.255 —
n-Propylene dichloride, consumers', dms., c.l., dlvd. E lb. .0845- —
dms., t.c.l., same basis lb. .0995- —
tanks, same basis lb. .07 - —
Propylene dichloride prices in West 1c. higher, same basis
Propylene glycol, indust., dms., c.l., dlvd. E lb. .15 - —
dms., t.c.l., same basis lb. .16¾- —
tanks, same basis lb. .12½- —
USP, dms., c.l., dlvd. E lb. .17 - —
dms., t.c.l., same basis lb. .18¾- —
tanks, same basis lb. .14½- —
Propylene glycol methyl ether, dms., c.l., dlvd lb. .20 - —
dms., t.c.l., same basis lb. .21 - —
tanks, same basis lb. .18½- —
Propylene oxide, dms., c.l., dlvd E. lb. .17 - —
dms., t.c.l., dlvd. E. lb. .18½- —
tanks, dlvd. E. lb. .14½- —
Psyllium seed, black, bgs lb. .20 - .35
Blonde bgs. lb. .18 - .20
Husks, bgs. lb. .42 - .45
Pumice, dom., grd., coarse to fine, 0, ½, 1, 1½, 2, 3, bgs., ton lots lb. .035½- .04½
bgs. smaller lots lb. .03⅝- —
Imp., Italian, silk-screen, coarse, bgs., ton lots lb. .05½- —
fine, bgs ton lots lb 0¼ —
sun dried, coarse, bgs ton 60.00 —
fine, bgs ton 60.00 -70.00
Pumpkin seed, bgs lb. .25 - .26
Pyrethrins (see Allethrin)
Pyrethrum flowers, fine grd., 0.9% pyrethrins, bgs., ton, works lb. .50 - —
Powd., 1.3% pyrethrins, bgs., ton, works lb. .71 - —
Pyrethrum liquid 20:1 basis 20 grams pyrethrins per 100cc odorless base), dms., works gal. 9.60 9.80
Pyrethrum liquid, 100:1 basis (10 grams pyrethrine per 100cc odorless base), dms., works, gal.45.90 -46.90
Pyrethrum oleoresin, dewaxed, 20% dms., works lb.11.00 -11.35
purif., 20%, dms., works lb.11.00 -11.35
Pyridine, denat., dms c.l., works and frt equald gal 2.77 - —
dms t.c.l same basis gal 2.80 - —
Refd., 2°, non-ret, dms., t.c.l., same basis lb. .70 - —
tanks, same basis lb. .65 - —
Pyridoxine hydrochloride USP, 500-gram bots., dms., f.o.b. works, kilo.175.00 - —
Pyrites, Canadian, 48-50% S, mines, long-ton 5.00 6.00
Pyrocatechol (see Catechol)
Pyrogallic acid NF (see Pyrogallol)
Pyrogallic acid, tech., bbls., 100-lbs., f.o.b. works lb. 3.50 - —
Pyrogallol, NF 100 lb dms. lb 3.50 - —
Pyroxylin, USP bots. lb 9.50 - —

Q

Quassia chips lb. .10 - —
Quicksilver (see Mercury metal)
Quince seed, bgs. lb. 1.30 - 1.40
Quinidine sulfate, USP, 1,000-oz. dm., oz. .74½- —
Quinine, NF, 1,000-oz. dm. oz. .3105- —
Quinine bisulfate, USP, 1,000-oz. dm. oz. .2330- —
Quinine hydrochloride, 1,000-oz. dm. oz. .3030- —
Quinine sulfate, USP, 1,000-oz. dm. oz. .2575- —
Quinoline, dms., c.l., frt. equald lb. .80¾- —
dms., t.c.l., same basis lb. 51¼- —
tanks, same basis lb. .50 - —

R

H salt, paste dms frt alld., 100% basis lb. .98 - —
Powd., frt alld, 100% basis lb. 1.08 - —
Rapeseed oil, dms lb. .14¾- .15
tanks lb. .12¾- —
Rare earth chloride, 46%, dms., dlvd lb. .25 - —
Rare earth oxalate, NF, 45-50%, bgs., works lb. 1.15 - —
Rauwolfia serpentina root, powd., bbls. dms lb 1.00 1.20
Red carmine No. 40 (see Carmine).
Red oil (see Oleic acid)

RED PIGMENTS
Red pigment quotations are listed individually. For example, prices on Red, lithol toner, may be found in the L's under Lithol red toner.

Red precipitate (see Mercuric oxide, red)
Reserpine, cryst. bots gram 1.25 - —
Resorcinol tech grade, dms., c.l., works, frt. equald lb 77¼- —
dms t.c.l. same basis lb 78¼- —
USP, powd., dms., works lb. 2.95 - —
Resorcinol monoacetate, NF dms. lb 2.50 - —
Rhatany root bgs. lb. .14 .16
Rhodamine red toner, molybdated, PMA, kgs., works lb 6.00 - —
Tungstated, PTMA works, kgs lb 6.60 —
Rhodinol, 5-lb. cans lb.42.00 -51.00
Synthetic lb.14.00 -16.00
Rhubarb root, India whole, bgs lb. .25 - —
powd., bgs. lb. .35 - —
Riboflavin, USP, fib. dms., kilo or more, dlvd kilo.36.00 - —
Riboflavin, USP, readily soluble, bots., dlvd kilo.130.00 - —
Riboflavin, 5-phosphate-sodium fib. dms. kilo or more dlvd. kilo 104.50 - —
Rice bran oil clarified, dms. t.c.l. lb. .14½- .15
tanks, dlvd. E lb. .12½- —
Ricinoleic acid (see Castor oil acids split).
Rochelle salt (see Potassium sodium tartrate).
Roofing pitch (see Coaltar pitch roofing)
Rose oil, nat. Bulgarian bots oz 72.00 —
Turkish bots. oz.55 00 -58 00
Rosemary oil Spanish, NF, cns., dms lb. .97 - 1.40
Spanish, tech., cns., dms. lb. .50 - 1.20
Rosin gum and wood (see Naval Stores in Protective Coatings Market)
Rotenone, fib. dms., works, unit-lb. .12 - —
Resin, 25-45% fib dms. works, unit-lb. .12 - —
Rottenstone bgs. 5-ton lots, ex-whse lb. .03¾- —
bgs. ton lots same basis lb. .04¼- —
Rubber solvent, petroleum, 115°F-245°F b.r., tankcars, New Jersey and New York gal. .19 - —
Group 3 gal. .13875- —
Houston, Texas gal. .155 - —
Rue oil, bots lb 2.75 3.00
Rutin, NF fib ons., 10 kilo lots kilo.13.00 - —
fib. dms., 5 kilo lots kilo.13.50- —
fib. dms., 1 kilo kilo.14.00 - —
Ryania, 100%, powd., bgs., c.l., works lb. .22 - —
bgs. t.c.l., same basis lb. .24 - —

S

S acid, bbls., works lb. 3.25 - —
Sabadilla seed activated, ground with lime, bbls lb. .42 - .44
Saccharin, calcium, fib dms., 1,000-lb lots, works lb. 2.50 - —
USP, gran. soudne ons. 1,000-lb. lots lb. 1.40 - —
dms., smaller lots lb. 1.50 - —
USP, powd., soluble, insoluble, dms., 1,000-lb. lots lb. 1.45 - —
dms., smaller lots lb. 1.55 - —
USP, powd., insoluble, dms., 1,000-lb. lots lb. 1.43 - —
dms., smaller lots lb. 1.53 - —
Safflower oil, dms., New York lb. .1755- .18
tanks, Atl. Coast lb. .1555- —
Saffron, Mancha Superior, tins lb.19.50 - —
Safrol dms lb. 70 - —
Sage, Dalmatian, bgs. lb. .40 - —
Greek, cns lb. .16 - —
Italian, cns lb. 18 - —
Sage oil, clary, bots lb.20.00 -30.00
Dalmatian, cns. lb. 2.85 - 3.25
Spanish, cns. lb. 1.25 - 1.75
Sal soda (see Soda sal).
salicylaldehyde, dms., c.l., t.l., f.o.b. plant, frt. equald lb. 1.23 - —
dms., t.c.l., same basis lb. 1.25 - —
Salicylamide, 100-lb dms lb. 1.05 - —
Salicylic acid, crude, fib. dms., c.l., t.l., frt alld lb. .37¼- —
fib dms. t.c.l., frt. alld on 100 lbs. or more lb. .38½- —
Sublimed, tech. fib dms., c.l., t.l. dlvd lb. .39¼- —
fib. dms., t.c.l. dlvd lb. .43½- —
USP, cryst., 200-lb. fib. dms., 1,000 lbs. or more lb. .50½- —
200-lb fib. dms. less than 1,000 lbs lb. .52½- —
100-lb. fib. dms., 1,000-lbs. or more lb. .52½- —
100-lb fib. dms., less than 1,000 lbs. lb. .55½- —
USP, powd., 100-lb. fib. dms., 1,000 lbs. or more lb. .57½- —
100-lb fib dms., less than 1,000 lbs lb. .60½- —
Salol, NF gran., bbls. kgs lb. 1.20 - —
Powdered salol, 25c per lb. higher
Salt, rock, paper bgs., c.l., 100 lbs. 1.09 - —
Salt, table vacuum, common, fine, paper bgs. c.l 100 lbs. 1.34 - —
Saltcake, dom., bulk, works, 100% Na_2SO_4 basis ton.28.00 - —
Saltpeter (see Potassium nitrate)
Sandalwood, E Indian, chips, bgs. lb. .65 - .66
powd. fib dms. lb .75 - 76
Sandalwood oil, cns. lb.17.50 -18.75
Sarcosine, tech., tanks, f.o.b., works, frt. equald lb. 1.03 - —
Sardine oil, crude, tanks, Pac. coast. lb. No stocks
Sassafras oil, artif., dms. lb. .43 - —
Nat., dom., dms lb. 1.45 - 2.15
Savory oil cns lb. 4.75 - —
Schaeffer's salt, paste, dms., frt. alld. 100% basis lb. .85 - —
Powd. bgs. frt. alld. 100% basis. lb. .95 - —
Scopolamine hydrobromide, USP, bots. oz.13.00 - —

Sebacic acid, CP, bgs., c.l., works lb. .69½- —
bgs., l.c.l., works lb. .71½- —
Purified, bgs., c.l., works lb. .65½- —
bgs., l.c.l., works lb. .67½- —
Seidlitz mixture fib dms, 5,000-lb. lots lb. .30½- —
fib. dms., smaller lots lb. .31 - .32
Selenium, powd., 99½%, dms., dlvd lb. 7.00 - —
Senega root, bls lb. 3.00 - —
Senna leaves, Alexandria, whole and half, bls lb. .20 - .22
siftings lb. .16 - —
Tinnevelly, No. 1, bls lb. .22 - —
No. 2, bls. lb. .18 - —
No. 3, bls. lb. .14 - —
pods, bls. lb. .23 - —
powd., bbls., bxs. lb. .17 - —
Serpentaria root, bls. lb. 6.50 - —
Sesame oil, USP, dms. lb. .38 - .39
Sesame seed, Colombian, bgs. lb. .15½- —
Lebanese, hulled, bgs lb. 19 - —
Nicaraguan, hulled, bgs lb. .21½- —
nat., bgs. lb. .14 - —
Salvadorian, nat., bgs lb. .16 - —
Shellac, bleached, bonedry, bgs., 1,500-lb. lots lb. .46 - —
bbls., 1,500-lb. lots lb. .47 - —
kgs., 1,500-lb. lots lb. .48 - —
Bonedry shellac prices for less than 1,500-lb. lots 1c. per lb. higher for all packages.
Shellac, bleached, refd., bgs., 1,500-lb. lots lb. .56 - —
bbls., 1,500-lb. lots lb. .57 - —
kgs., 1,500-lb. lots lb. .58 - —
Shellac, orange, lemon No. 1, bgs., 10-bg. lots lb. .37 - .39
lemon No. 2, bgs., 10-bg. lots. lb. .34 - .37
superfine, bgs., 10-bg. lots lb. .32 - .34
Shellac in 1 to 10-bg. lots 1c. per lb. more.
Shingle stain oil, tar distillate, dms., c.l., works gal. .37 - —
dms., t.c.l., works gal. .48 - —
tanks, works gal. .25 - —
Sienna pigment, burnt, paper bgs., c.l., works lb. .06½- .18½
paper bgs., t.c.l., works lb. .06¾- .17¾
Raw, paper bgs., c.l., works lb. .06¾- .16¾
paper bgs., t.c.l., works lb. .07 - .17
Silica, amorph., dry-grd., 325 mesh, bgs., c.l., works ton. 25.00 - —
bgs. t.c.l., works, ex whse. ton. 45.00 - 55.00
Silica, hard-quartz, 99½%, 325 mesh, bgs., c.l., works ton. 20.00 - —
bgs. t.c.l., works ton. 25.00 - —
99½%, 140 mesh, bgs., c.l., works ton. 15.00 - —
bgs., t.c.l., works ton. 20.00 - —
Silicon tetrachloride, tech., dms., c.l., works lb. .18 - —
dms., t.c.l., works lb. .22 - .30½
tanks, works lb. .17 - —
Silver bullion, ingots, as Troy oz. .91¾- —
Silver cyanide bots., 1,000-oz lots. oz. .94¾- —
bots., 500-oz. lots oz. .95¼- —
bots., 100-oz. lots oz. .95¼- —
Silver nitrate CP, cryst., bots., 1,000 to 3,000-oz., f.o.b. works. oz. .67¼- —
bots., 250-500 oz., same basis. oz. .67¾- —
USP granular silver nitrate 4c. per oz. higher.
Silver proteinate, mild, USP, bots., dms., 1,000-oz. lots oz. 1.15 - —
Strong, NF, bots., dms., 1,000-oz. lots oz. 1.10 - —
Snakeroot oil, Canada, cns lb. 40.00 - 43.00
Soapbark, crushed, bls lb. .30 - .35
Powd., bls. lb. .35 - .40
Whole, bls. lb. .20 - .25
Soda ash, dense, 58%, paper bgs., c.l., works 100 lbs. 1.90 - —
paper bgs., l.c.l., stock pts., 100-lbs. 3.00 - 4.77
bulk, c.l., works 100 lbs. 1.60 - —
Light, 58%, paper bgs., c.l., works 100 lbs. 1.85 - —
paper bgs., l.c.l., stock pts. 100 lbs. 3.95 - 4.72
bulk, c.l., works 100 lbs. 1.55 - —
Soda, caustic, flake, 76%, dms., c.l., works, frt. equald 100 lbs. 5.20 - —
liq., 50%, sellers' tanks, works, dry basis 100 lbs. 2.90 - —
50%, rayon type, sellers' tanks, works, dry basis 100 lbs. 2.90 - 3.00
73% sellers' tanks, works, dry basis 100 lbs. 3.00 - —
liq., 73%, rayon type, sellers' tanks, works, dry basis lb. 3.00 - 3.10
solid, 76%, dms., c.l., works. 100 lbs. 4.80 - —
Soda, sal, conc., bgs., c.l., works, 100 lbs. 2.50 - —
bgs., smaller lots, works 100 lbs. 2.80 - —
Sodium acetate, anhyd., bgs., c.l., dlvd. E lb. .14½- —
NF, 60%, gran., dms., c.l., works. lb. .15½- —
dms., l.c.l., works lb. .17½- —
Sodium alginate, NF, white powd., dom., 300 lbs. or more lb. 1.02 - —
Sodium p-aminosalicylate, dms., 100-lb. lots or more frt. adjusted lb. 1.90 - —
Sodium antimoniate, bgs., c.l. dlvd. E lb. .27½- —
bgs., l.c.l., dlvd. E lb. .29 - —
Sodium arsenate, 60% arsenic pentoxide, dms., any quantity, f.o.b. works lb. .40 - —
Sodium arsenite, 90% pink powder, 75% arsenious oxide, dealers, dms., ton lots or more, works lb. .17½- —
dms., less than ton lots, works lb. .18 - .19
Sodium ascorbate, dms., 25-50 kilo dms., f.o.b. works kilo. 10.00 - —
10-kilo dm., same basis kilo. 10.35 - —
5-kilo dm., same basis kilo. 10.75 - —
1-kilo bot., same basis kilo. 11.00 - —
Sodium benzoate, tech., dms., c.l., t.l., frt. alld lb. .35 - —
dms., l.c.l., same basis lb. .39 - —
USP, dms., c.l., t.l., frt. alld lb. .38 - —
dms., ton lots, same basis lb. .43 - —
dms., 1,000-lb. lots, same basis. lb. .45 - —
Sodium bicarbonate, USP, gran., bgs., c.l., works 100 lbs. 2.95 - —
bgs., l.c.l., works 100 lbs. 3.85 - —
USP, powd., bgs., c.l., works. 100 lbs. 2.55 - —
bgs., l.c.l., works 100 lbs. 3.45 - —
Sodium bichromate, gran., bgs., c.l. t.l., works lb. .13 - —
bgs., l.c.l., works lb. .13¼- .14¼
Sodium bichromate in dms. ¼c. per lb. higher
Sodium bifluoride, bbls., c.l., works, frt. equald lb. .19¼- —
bbls., l.c.l., same basis lb. .2023- —
Sodium bisulfate, bulk, c.l., works. 100 lbs. 2.00 - —
dms., c.l., frt. equald 100 lbs. 3.00 - 3.60
dms., l.c.l., frt. equald 100 lbs. 3.50 - 4.10

Sodium bisulfite, anhyd., bgs., c.l., works 100 lbs. 5.00 - —
bgs., l.c.l., works 100 lbs 5.45 - —
Soln., 35° bbls., c.l., works 100 lbs 1.70 - —
bbls., l.c.l., works 100 lbs 2.20 - —
Sodium borate (see Borax)
Sodium borohydride, powd., dms., c.l., works lb. 19.90 - —
dms., l.c.l., works lb. 33.00- 40.00
Sodium borohydride, stabilized water soln., 12% $NaBH_4$, 100% basis, dms., works lb. 15.00 - —
Pelletized sodium borohydride $1 per lb higher in 1,000-lb lots.
Sodium bromide, USP, gran., dms., works lb. .40 - —
Sodium carbonate, cryst., monohydrated (see Soda, sal)
Sodium carbonate, mononydrated, bgs., c.l., works 100 lbs 3.10 - —
bgs., l.c.l., works 100 lbs 3.50 - —
Sodium carboxymethyl cellulose (see CMC).
Sodium chlorate, cryst., 350-lb. dms., c.l. works lb. .09 - —
dms., t.c.l., works lb. 09½- .10½
Sodium chlorate in 100-lb. dms., only, ¼c. per lb higher
Sodium chloride, tech. (see Salt)
Sodium chloride, USP, gran., bgs. lb. .05 - —
Sodium chlorite, tech., dms., c.l., works lb. .58 -
dms., 20-dm lots or more works. lb. .66 - —
dms., smaller lots, works lb. .70 - .73
Sodium chloroacetate, tech., dms., c.l., works lb. .27 - —
dms., t.c.l., works lb. .28 - —
Sodium chromate, anhyd, fib, dms., c.l., t.l., works lb. .14¾- —
fib. dms., t.c.l., works lb. .15¼ .16½
Sodium chromate, tetrahydrate, bgs., c.l., t.l., works lb. .1015- —
bgs., t.c.l. lb. .1055 .1190
Sodium citrate, anhyd., 200-lb. dm., f.o.b works E lb. .62 - —
NF VIII, gran., bgs., c.l., same basis lb. .26 - —
USP XIV, gran., bgs., c.l., same basis lb. .29 - —
Sodium citrate, USP powd prices ½c higher.
Sodium cyanate, dms., 1,000-lb. lots, works lb. .85 - —
dms., smaller lots, works lb. .90 1.10
Sodium cyanide, flake, 96-98%, dms., c.l. or 20,000-lb. lots lb. .193 - —
dms., over 1,000-lb lots lb. .203 - —
dms., 100-lb to 1,000-lb lots lb. .213 - —
Gran. sodium cyanide 1c higher.
Sodium cyclamate, 100-lb dm., f.o.b. works lb. 1.95 - —
Sodium diacetate anhyd., 39-41% acetic acid, dms., c.l., works lb. .18 - —
250-lb. dms., t.c.l. works lb. .18¾- —
Tech., 33-35% acetic acid, dms., l.c.l., works lb. 15 - —
250-lb. dms., t.c.l., works lb. .15¼ —
Sodium dimethyl dithiocarbamate, 40% soln. dms c.l., t.l., frt. alld., 100% basis lb. .42 - —
dms., t.c.l., t.l., same basis lb. 47 - .52
tanks, same basis lb. .38 - —
Sodium ferrocyanide, bgs., 10-ton lots lb. .13½- —
bgs., smaller lots lb. .14¾- —
Sodium fluoride, white, 97%, fib. dms., c.l., works, frt. equald lb. .1390- —
fib. dms., t.c.l., works, frt. equald lb. .1465- —
Sodium formate, bgs., c.l. works. 100 lbs. 7.05 - —
bgs., l.c.l., ex whse. 100 lbs 8.65 - —
Sodium gentisate, 100-lb fib. dms. lb. 5.50 - —
Sodium gluconate, refd., 250-lb. dm., f.o.b. works E lb. .84 - —
Tech. bgs., c.l., t.l. same basis lb. .34 - —
Sodium hydride, 50% soln. in oil, dms., works lb. 1.25 2.50
25% soln. in oil, dms. 50 lbs or less, f.o.b shipping point lb 2.20 - —
dms., 50-99 lbs. same basis lb. 1.77 - —
dms., 100-999 lbs. same basis lb. 1.20 - —
dms., 1,000 lbs or more, same basis lb. .95 - —
Sodium hydrosulfide (see Sodium sulfhydrate).
Sodium hydrosulfite dms. c.l., frt. alld lb. .23½- —
dms., l.c.l., frt. alld. lb. .25¾- —
Sodium hydroxide, NF pellets, 100-lb. dms., 1 to 100-dm lots. lb. .23½- .28
Sodium hydroxide, tech. (see Soda, caustic).
Sodium hypophosphite, NF, dms., 1,000-lb lots lb. .97 —
Sodium hyposulfite (see Sodium thiosulfate).
Sodium iodide, USP, 300-lb. dm., f.o.b. works lb. 1.98 - —
Sodium lauryl sulfate, dms., c.l., dlvd lb. .20½- —
dms., l.t.l., dlvd lb. .21½- —
tanks, dlvd. lb. .19½- —
Sodium lignin sulfonate, bgs., c.l., works 100 lbs. 4.25 6.50
t.c.l., bgs., works 100 lbs 4.40 7.00
Sodium metabisulfite (see Sodium bisulfite).
Sodium metaborate octahydrate, gran., bgs., c.l., works ton. 210.00 - —
bgs., ton lots, ex whse 100 lbs. 8.00 - —
bgs., smaller lots, ex whse. 100 lbs 9.25 -11.25
Tetrahydrate, bgs., c.l., works. ton. 210.00 - —
bgs., ton lots, ex whse 100 lbs. 13.93 - —
bgs., smaller lots, ex whse. 100 lbs. 15.18 -17.18
Sodium, metallic, bricks, c.l. works. lb. .21 - —
Fused, 18,000-lb. lots or more, works lb. .19½- —
tanks, works lb. .17 - —
Sodium metalinate, bbls., frt. alld. lb. .62 - —
Sodium metaphosphate, bgs., c.l., f.o.b. shipping pt 100 lbs. 11.10 - —
bgs., l.c.l., same basis 100 lbs. 11.85 - —
dms., c.l., same basis 100 lbs. 11.70 - —
dms., l.c.l., same basis 100 lbs. 12.45 - —
Sodium metasilicate, anhyd., bgs., c.l., works 100 lbs 5.70 - —
bgs., 6,000-19,900 lb. lots, works. 100 lbs 6.05 - —
dms., c.l., works 100 lbs 6.20 - —
dms., l.c.l., works 100 lbs 6.55 - —
Sodium metasilicate pentahydrate, bgs., c.l., works 100 lbs 4.45 - —
bgs., l.c.l., works 100 lbs 4.80 - 6.75
dms., c.l., works 100 lbs 4.95 - —
dms., l.c.l., works 100 lbs 5.30 - 7.25
Sodium molybdate, anhyd., dms., works, frt. equald lb. .92 - .99
Cryst., dms., works, frt. alld lb. .74 - .76
Sodium monoglutamate (see Monosodium glutamate).
Sodium monohydrate (see Sodium carbonate, monohydrated).
Sodium naphthionate, bbls. lb. .70 - —

Sodium nitrate, dom., crude, bgs., c.l. works ton. 43.00 - —
bulk, c.l., works ton. 44.00 - —
Imp., crude, 100-lb. bgs., c.l., Atl., Gulf, Pac. whse ton. 48.00 - —
bulk, c.l., same basis ton. 44.00 - —
Sodium nitrite, USP, bbls., c.l., works, frt. equald 100 lbs. 9.00 - —
bbls., l.c.l., same basis 100 lbs. 11.00 - —
Sodium orthosilicate, conc., dms., c.l., works 100 lbs. 6.70 - —
dms. t.c.l. works 100 lbs. 7.05 - 7.65
Hydrated flake bbls., c.l., works. 100 lbs. 5.65 - —
bbls, t.c.l., works 100 lbs 7.60 - 7.90
Sodium oxalate, 88%, bgs., works. 100 lbs. 12.35 - —
99%, bgs., works. 100 lbs. 15.40 - —
Sodium para-aminobenzoate (see Sodium p aminobenzoate)
Sodium para-aminosalicylate (see Sodium p aminosalicylate)
Sodium pentachlorophenate, briquets, dms., c.l. works, frt. equald lb. .26 - —
dms. t.c.l. same basis lb. .27½- .34
Pellets, dms., c.l., same basis lb. .26 - —
dms. c.l. same basis lb. .27½ .34
Powd., dms., c.l. same basis lb. .25 — —
dms., t.c.l., same basis lb. .26½- .33
Sodium pentobarbital, USP, dms., 100 lbs. or more lb. 6.00 - —
Sodium perborate, NF, tech., bgs., c.l. works lb. .18½- —
bgs., t.c.l., works lb. .19 .21
Sodium peroxide, dms., c.l., t.l., dlvd. E, of Miss lb. .21½- —
dms. t.c.l., same basis lb. .22 - .22½
Sodium phenobarbital USP 100-lb 3.75 —
Sodium phenolsulfonate USP IX, gran., dms lb. .52 - .53
NF, powd., dms lb. .55 56
Sodium phosphate, dibasic, anhyd., bgs., c.l., frt. equald. 100 lbs 7.95 - —
bgs., t.c.l. same basis 100 lbs 8.35 9.40
Dibasic, cryst., bgs., c.l., t.l., frt. equald 100 lbs. 4.60 - —
bgs. t.c.l. frt equald 100 lbs 5.00 5.75
Dibasic, duohydrate, bgs., c.l., frt. equald 100 lbs. 7.60 - —
bgs. t.c.l. same basis 100 lbs 8.10 - —
USP dried, powd. bgs. dms., works lb. .19 - .20½
Monobasic, anhyd., bgs., c.l., frt. equald 100 lbs. 9.00 — —
bgs., t.c.l. same basis 100 lbs 9.40 -10.00
Tribasic, anhyd., bgs., c.l., frt. equald 100 lbs. 9.00 - —
bgs., t.c.l. frt. equald 100 lbs 9.45 -10.05
Sodium phosphate in dms. 60c to 80c higher than bgs
Sodium picramate, tech. paste, dms., f.o.b. works, frt equald lb. .90 - —
Sodium prussiate, yellow (see Sodium ferrocyanide)
Sodium pyrophosphate acid, bgs., c.l., works, frt equald. 100 lbs 11.10 —
bgs., t.c.l., same basis 100 lbs. 11.85 -12.35
Sodium pyrophosphate, ferric, dms c.l. t.l. works lb. .36 —
dms t.c.l., works lb .37 .39
Tetrabasic, anhyd., bgs., c.l., works, frt. equald 100 lbs. 7.81 - —
bgs., t.c.l. same basis 100 lbs 9.21 9.71
Sodium salicylate USP dms. 1,000-lbs or more lb. 78½- —
dms. less than 1,000 lbs dms. lb .81½- —
Sodium sesquicarbonate, bgs., c.l., works 100 lbs 2.35 — —
bgs., t.c.l., dlvd. zone 1 100 lbs 4.10 4.35
dlvd zone 2 100 lbs 4.35 4.60
dlvd zone 3 100 lbs 4.75 4.90
dlvd zone 4 100 lbs 5.35 5.60
Sales zones are: (1) Atl states E. of Miss., R and N of south bound of Ky and Va. Ala., La., and Miss. south of 31°; Tex E of 100°; S of 31° Fla.; also Me., N H and Vt in which there are special county zones; Davenport, Ia., and St Louis; (2) Ark E of 98° Ga.; Iowa (except Davenport) Minn Mo (except St Louis) Neb E of 98° N. C., S C., Tenn and Tex N of 31 and E of 100° (except Wichita Falls); also Ala. La and Miss. No of 31°; (3) Ark W of 98°, Kan, Neb W of 98° N D. Okla., S D. Tex., W of 100° (including Wichita Falls excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah, Wyo and El Paso Tex.
Sodium sesquisilicate, anhyd., bgs., c.l., t.l., works 100 lbs 5.70 - —
dms., c.l., t.l. works 100 lbs 6.20 - —
Sodium sesquisilicate, hydrated, bgs., c.l., works 100 lbs. 5.00 - —
bgs., 6,000-19,900 lb lots, works. 100 lbs 5.35 - —
dms., c.l., works 100 lbs 5.50 - —
dms., 6,000-19,900 lb. lots, works. 100 lbs. 5.85 - —
Sodium silicate, liq., 40° Be. 1:3.2, turbid, dms., c.l., works 100 lbs. 1.65 - —
dms t.c.l., works 100 lbs 1.90 - 2.40
tanks, works 100 lbs 1.20 - —
47° Be., 1:29.9, turbid, dms., c.l., works 100 lbs. 2.25 - —
dms., t.c.l., works 100 lbs 2.60 - 3.45
tanks, works 100 lbs 1.90 - —
52° Be., 1:2.4, turbid, dms., c.l., works 100 lbs. 2.65 - —
dms., t.c.l., works 100 lbs 3.00 - 3.50
tanks, works 100 lbs 2.30 - —
Solid, 1:3.2, bgs., works ton. 67.50 - —
Sodium silicofluoride, bgs., c.l., works lb. .065 - —
bgs., t.c.l., works lb. .725 - —
Sodium silicofluoride in dms. 0.4c. per lb. higher.
Sodium stannate, dms. works, frt. alld. E lb. .633 - .692
Sodium sulfa drugs (see Sulfa name)
Sodium sulfanilate, bbls., works lb. .22 - —
Sodium sulfate, NF VII, dried, powd., dms lb. .22½- —
Tech., anhyd., bgs., c.l., dlvd. E. ton. 54.00 - —
Tech., detergent, rayon grade, bgs., c.l., works ton. 36.00 - —
bulk, c.l., works ton. 32.00 - —
USP, cryst., fib. dms. lb. .17½- .18
Sodium sulfhydrate, flake, 70-72%, dms., c.l., works frt. equald. lb. .07¼- —
dms., t.c.l., same basis lb. .08¼- —
Liq., 40-44%, tanks, works, 100% basis ton. 130.00 - —
Sodium sulfide, flake, dms., c.l., works, E., frt. equald lb. .06 - —
dms. t.c.l. same basis lb. .07 - —
Fused, bbls., c.l., works, E., frt. equald lb. .05½- —
bbls. t.c.l., same basis lb. .06½- —
Sodium sulfite, anhyd., powd., bgs., c.l., works 100 lbs. 7.55 - —
bgs., t.c.l. same basis 100 lbs. 7.95 - —
Anhyd., tech., bgs., c.l., works. 100 lbs. 3.50 - —
bgs., t.l., same basis 100 lbs. 4.00 - —
Sodium sulfocyanide, CP (see Sodium thiocyanate)
Sodium tetraborate (see Borax)

Sodium tetrasulfide, liq., 40% dms., c.l., works, frt equald lb. .04½- —
dms., t.c.l., same basis lb. .05½- —
Sodium thiocyanate, CP, dms lb. .55 .63
Tech., anhyd. dms., 1 ton lots or more, works lb. .317 - —
dms., less than ton lots, works lb. .337 - —
Sodium thiosulfate, NF, cryst, bbls. lb. 13½- —
Tech., anhyd., 100-lb. bgs., c.l., t.l., frt. equald 100 lbs. 7.75 - —
100-lb. bgs., t.c.l., t.l., frt. equald 100 lbs. 8.15 - —
Tech., anhyd., photo grade, 64-lb. bgs., c.l., t.l., frt. equald. lb. .0775- —
64-lb. bgs., t.c.l., t.l., frt. equald lb. .0815- —
Tech., pentahydrate, photo grade, 100-lb. bgs., c.l., t.l., frt. equald 100 lbs. 4.95 - —
Sodium thiosulfate, tech., pentahydrate, bgs., t.c.l., t.l., frt. equald, photo grade, 100-lb. equald 100 lbs. 5.20 - —
Sodium titanate, ctns. c.l., works. lb. .14¼- —
ctns. 5-ton lots, works lb. .14¼- —
ctns. 1-ton or less works lb .14¾- —
Sodium trichloroacetate, 90%, 100-lb. dms. c.l. frt alld E. lb. .35 - —
50-lb dms. c.l. frt alld E lb .35½- —
10-lb cns. c.l. frt alld E lb 42 — —
Prices on Sodium trichloroacetate W of the Rockies are 1¾c per pound higher.
Sodium tripolyphosphate, bgs., c.l., works, frt equald 100 lbs 8.16 — —
bgs. t.c.l., same basis 100 lbs 8.56 8.96
Sodium trisilicate, powd., 1:3.2, bgs. c.l., works 100 lbs 8.95 — —
bgs., t.c.l. works 100 lbs 9.70 -13.13
dms. c.l., works 100 lbs 9.45 — —
dms., t.c.l. works 100 lbs. 10.20 -10.60
Sodium tungstate tech. kgs dlvd. E lb. 1.09 - —
Sodium-ammonium phosphate, purif., cryst. dms. works lb .52 - —
Sodium-carboxymethyl cellulose (see CMC).
Sodium-cinchophen (see Cinchophen sodium).
Sodium-formaldehyde sulfoxylate, dms., c.l., dlvd lb. .21 — —
dms. t.c.l. same basis lb. .21½- —
Sodium-zirconyl sulfate, fib. dms., 1,000-lb lots or more works lb. .28 - —
fib. dms., smaller lots, same basis lb. .30 - —
Solvent naphtha, coaltar, high-flash, tanks, frt equald gal. .30 - .35½
Solvent naphtha, petroleum, straight aromatic, 310°F-360°F b.r., 14°-16°C m.a.p., tankcars, New Jersey and New York gal. .31 - —
Houston, Texas gal. .29 - —
355°F-420°F b.r., 17°-18°C. m.a.p., tankcars, New Jersey and New York gal. .32 - —
Houston, Texas gal. .30 - —
Solvent naphtha, petroleum, partial aromatic, 211°F-265°F b.r., 31°C. m.a.p., tankcars New Jersey and New York gal. .235 - —
286°F-340°F b.r., 22°C m.a.p., tankcars New Jersey and New York gal. .275 - —
319°F-380°F b.r., 27°C m.a.p., tankcars, New Jersey and New York gal. .285 - —
322°F-395°F b.r., 28°C. m.a.p., tankcars, New Jersey and New York gal. .295 - —
Sorbitan monostearate, tib dms., 20,000-lb. lots, works lb. .33 - —
fib dms., 10,000 to 20,000-lb. lots, works lb. .35 - —
fib. dms., smaller lots, works lb. .38 - .40
Sorbitan tristearate, fib dms., 20,000-lb lots, works lb. .34 - —
fib dms., 1,000 to 20,000-lb lots, works lb. .36 - —
fib dms, smaller lots, works lb. .39 - .41
Sorbitol, NF, reg., 70% aqueous, dms., c.l., works lb. .18 - —
dms., t.c.l., works lb. .19 - —
tanks, works lb. .16½- —
Cryst., resin grade, pellets, dms., c.l., works lb. .23 - —
dms., 1 to 5-ton lots, works. lb. 25 - .26
Powd., dms., c.l., works lb. .36 - —
dms. 1 to 5-ton lots, works. lb. .38 - .39
Soln., coml., aqueous, dms., c.l., works lb. .24¼- —
dms., ton lots, works lb. .25 - —
dms., smaller lots, works lb. .25¼- —
tanks, works lb. .23¼- —
Soya protein, chemically isolated, old process, bgs., c.l., works. lb. .23 - —
bgs., t.c.l., works lb. .23¼- .23¼
Chemically isolated, new process, bgs., c.l. works lb. .20 — —
bgs., t.c.l., works lb. .20¼- .20¼
Soybean meal, 44%, bulk, unrestricted, Decatur ton. 58.00 - —
Soybean oil, crude, tanks, Decatur. lb. .08¼- —
Foots, soapstock, acid 95%, tanks, N. Y. lb. .05¼- —
Refd., alkali, dms. lb. .1242- .1265
tanks lb. .1042- —
clarified, dms. lb. .1192- .1215
tanks lb. .0992- —
salad, dms. lb. .1210- .1235
tanks lb. .1010- .1015
Soybean oil acids, dbl. dist., dms., lb. .18 - .20½
tanks lb. .15½- —
S. D., dms lb. .16¾- .19¼
tanks lb. .14¼- —
Sparteine sulfate, cns., 100 oz. or more oz. .80 - —
Spearmint leaves, dom., bls. lb 75 - —
Spearmint oil, NF, dms. lb. 9.00 -11.75
Sperm oil, bleached, winter, 45° dms lb. .1475- .1575
tanks lb. .1275- —
Nat., winter, 45°, dms. lb. .1375- —
tanks lb. .1175- —
Spermaceti wax, blocks, cs. lb. .31 - .33
Cakes, cs. lb. .32 .34
Spruce oil cns., dms. lb 2.10 3.55
Squill, white, bls lb. .16 .18
Powd., bbls., bxs. lb. .17 - .20
St. John's bread, edible, bls. lb. .17 - —
Stannic chloride, anhyd., dms., works lb. .803 - .825
Stannic oxide, dms., dlvd. lb. 1.06 - 1.07
Stannous chloride, anhyd. dms., works lb. .995 - 1.250
Hydrous, cryst., dms., works lb. .86 - .87
Stannous sulfate, dms., works lb. 1.05 - 1.07
Star root (see Helonias root).
Stargrass root (see Aletris root).

Stavesacre Seed—Tartar Emetic

Stavesacre seed, bgs.	lb.	.60	.61
Stearic acid, dbl., pressed bgs	lb.	.15¾-	.18¼
Single-pressed, bgs.	lb.	.15¼-	.17¾
Triple-pressed, bgs.	lb.	.17½-	.20
Stearine, oleo (see Oleostearine)			
Stoddard solvent, petroleum tanks, east coast, New Jersey, New York	gal.	.18	—
tanks, Houston	gal.	.1475-	—
tanks, group 3	gal.	.12875-	—
Stramonium leaves, bgs.	lb.	.13	—
Streptomycin sulfate, bulk, gram.		.035 -	.036
Strontium bromide, NF, cryst., 100-lb. dm., f.o.b. E	lb.	.92	—
Strontium carbonate, pure, dms., 5-ton lots or more, works	lb.	.35	—
dms., 1-ton lots, works	lb.	.37	—
Tech., dms., works	lb.	.19	—
Strontium chromate, fib dms. dlvd.	lb.	.48	—
Strontium iodide, jars, 25-lb. lots	lb	3.57	—
Strontium nitrate, bgs., c.l., works	100 lbs	11.00	—
bgs., l.c.l., works	100 lbs.	12.00	—
Strontium salicylate NF, dms.	lb	1.88	—
Strontium sulfate, air floated, 90% 325 mesh, bgs., works	ton	56.70	66.15
Strophanthin G (see Ouabain, USP)			
Strophanthin K, bots.	oz.	25.00	25.50
Strophanthus seed, Kombi, biologically tested, bgs	lb	3.50	3.75
Styrax gum, USP cs	lb.	4.50	5.50
Styrene monomer, polymer grade, 99.6% dms. c.l. frt alld.	lb.	.17	—
dms., c.c.l., same basis	lb.	.19	—
tanks, same basis	lb.	.14½-	—
Tech., 99.2%, dms., c.l.	lb.	.1472-	—
dms., l.c.l., same basis	lb.	.1672-	—
tanks, bulk, same basis	lb.	.1222-	—

Above prices are escalated for each calendar quarter on the basis of cost of crude oil at the well, cost of petroleum refining labor, and prices in the three major sections of the Wholesale Commodity Price Index.

Styrolyl acetate, bots.	lb	1.25	1.45
Succinic acid, purif., cryst., dms., t.l., frt. alld.	lb.	.62	—
dms., l.t.l., same basis	lb.	.63	.75
Succinic anhydride, dms., c.l., t.l., dlvd	lb.	.51	—
dms., l.c.l., same basis	lb.	.52	—
Sucrose, refd., white, bgs., refy E.	lb.	.0920-	—
Sucrose acetate isobutyrate, 90%, dms., t.l., dlvd	lb.	.33½-	—
dms., l.t.l., same basis	lb.	.35	—
tanks, same basis	lb.	.31	—
100%, t.l., dms., dlvd.	lb.	.35½-	—
l.t.l., dms., same basis	lb.	.37	—
Sucrose octa-acetate, denaturing grade, 100-200-lb. lots, bgs., l.c.l. works	lb.	1.00	—
Sugar (see Sucrose).			
Sugar cane wax, dom., refd., slabs, 80-lb. ctns. works	lb.	.60	.65
50-lb. ctns., spot	lb.	.65	.75
Sulfabenzamide, dms.	kilo.	8.80	9.90
Sulfabenzamide-sodium, dms.	kilo.	9.00	10.10
Sulfacetamide, USP, fib dms.	kilo.	6.61	6.83
Sulfacetamide-sodium, USP, fib, dms	kilo.	8.15	9.25
Sulfadiazine, USP, microcrystals, dms	kilo.	23.35	24.45
USP, powd., dms.	kilo.	22.60	23.70
Sulfadiazine-sodium, USP, dms	kilo.	24.80	25.90
Sulfaguanidine, NF X, dms.	kilo	5.50	6.60
dms	kilo.	23.50	24.60
Sulfamerazine-sodium, USP, powd., dms	kilo.	24.80	25.90
Sulfamethazine, USP XV, microcrystals, dms	kilo.	19.65	20.75
USP XV, powd., dms	kilo.	18.75	19.85
Sulfamic acid, cryst., dms., c.l., t.l., works	100 lbs.	16.00	—
dms., l.c.l., l.t.l., works	100 lbs.	17.50	18.50
Gran., dms., c.l., t.l., works	100 lbs.	14.75	—
dms., l.c.l., l.t.l., works	100 lbs.	16.25	17.25
Sulfanilamide, NF, reg., 1,000 lb., frt. equald	lb.	1.50	—
NF, fib. dm., frt. equald	lb.	1.55	—
Sulfanilamide quinoxaline, veterinary dms	kilo.	16.28	—
Sulfanilic acid, tech., dms. c.l., frt. alld	lb.	.21	—
dms., l.c.l., frt. alld.	lb.	.23	—
Sulfapyridine, USP XV powd. bots. tins	kilo.	15.45	16.55
Sulfapyridine-sodium, monohydrate, dms	kilo	16.55	17.65
Sulfathiazole, NF X, microcrystals, dms	kilo.	6.25	6.90
NF X, powd., dms.	kilo.	5.50	6.15
Sulfathiazole-sodium, NF X, dms., 1,000-lb. lots or more	lb	2.35	—
Sulfur, coml., flour, bgs., mines	100 lbs.	2.35	—
bbls., mines	100 lbs	3.30	—
lump, bgs., mines	100 lbs	2.25	—
bbls., mines	100 lbs	2.80	—
Crude, dom., bright, bulk, f.o.b. cars, mines, long-ton		23.50	—
Crude, export, f.o.b. vessels, Gulf ports, long-ton		25.00	—
US and Canada f.o.b vessels Gulf ports long-ton		25.00	—
Domestic dark sulfur prices are $1 per long-ton lower			
Sulfur, crude, imp., Mexican, bulk, filtered, f.o.b., vessel, Coatzacoalcos long-ton		24.00	—
Mexican dark sulfur price is $1 per long-ton lower			
Sulfur, refd., flowers, NF, bgs., mines	100 lbs.	5.65	—
bbls., mines	100 lbs.	7.00	—
flour, light, bgs., mines	100 lbs.	5.25	—
bbls., mines	100 lbs.	6.25	—
lump, bgs., mines	100 lbs.	4.95	—
rolls, bgs., mines	100 lbs.	5.50	—
bbls., mines	100 lbs.	6.25	—
salt block, bgs., mines	100 lbs.	4.65	—
virgin block, bbls., mines	100 lbs	4.70	—
Sulfur, rubbermakers, coml., reg., bgs., mines	100 lbs	2.45	—
bbls., mines	100 lbs	3.70	—
98-100% passing through 325 mesh, bgs., mines	100 lbs	2.55	—
bbls., mines	100 lbs	3.80	—
refd., bgs., mines	100 lbs.	4.90	—
bbls., mines	100 lbs.	6.05	—
treated, 2.5% mineral oil bgs., mines	100 lbs	2.75	—
bbls., mines	100 lbs	4.00	—
Sulfur dichloride, ret. dms. c.l., works, frt. equald	lb.	.05¼-	—
ret. dms., l.c.l., same basis	lb.	.06¼-	—
tanks, same basis	lb.	.04½-	—
Sulfur dioxide, liq. coml., cyls., works, frt equald	lb.	.10	.12
multi-unit cars, works	lb.	.0535-	—
tanks, works	lb.	.045	—
Sulfur dioxide, refrigeration, cyls., dlvd	lb.	.33	—
Sulfur monochloride 55-gal non-ret. dms., c.l., frt. equald	lb.	.05¼-	—
dms, l.c.l., same basis	lb.	.06¼-	—
tanks, same basis	lb.	.04½-	—
Sulfuric acid 60° Be. cbys., c.l., works	100 lbs	2.00	—
cbys., l.c.l., works	100 lbs	2.30	—
tanks, works	ton.	18.60	—
66° Be. cbys. c.l., works	100 lbs	2.25	—
cbys., l.c.l., works	100 lbs	2.55	3.35
tanks, works	ton	22.35	—
98%, tanks, works	ton.	23.50	—
99%, tanks, works	ton.	23.70	—
100%, tanks works	ton.	23.95	—
CP, NF, consumers' cbys., c.l., frt. equald	lb.	.12¾-	—
Sulfuric acid, CP, NF, consumers', cbys., l.c.l., same basis	lb.	.14¼-	.14¾
5-pt. bots, extra, cs., c.l. works, frt alld	lb.	.16¼-	—
5-pt. bots, extra, cs., l.c.l. same basis	lb	17¾-	.18¾
Sulfuric acid fuming (oleum), 20% tanks, works	ton.	25.00	—
40%, tanks, works	ton	29.00	—
65%, tanks works	ton	39.50	—
Superphosphate run-of-pile, under 22% a.p.a., pulv., bulk., c.l. Baltimore unit-ton.		.90	.93
bulk, c.l. Carteret, N. J. unit-ton.		.90	.93
bulk, f.o.b. vessel unit-ton		1.02	—
Superphosphate, triple, 48% or more a.p.a., pulv., bulk c.l., East Tampa, Fla unit-ton.		.98	—
Sweet birch oil, USP, northern, cns	lb	4.00	9.50
USP, southern, cns.	lb	2.00	3.05

T

2,4,5-T, dms., c.l. works frt. equald.	lb	1.18	—
dms, l.c.l. same basis	lb	1.25	—
2,4,5-T isopropyl ester, dms., c.l., works, frt equald	lb	1.24	—
dms., l.c.l., works	lb	1.29	—
Talc, dom., fibrous, grd., bgs., c.l., works, New York	ton.	28.00	—
bgs. l.c.l., works	ton.	31.00	36.00
fibrous, 99.5%, 325 mesh, bgs., c.l., works, New York	ton.	31.00	—
bgs. l.c.l., works	ton.	34.00	—
fibrous, 99.95%, 400 mesh, micronized bgs., c.l., works	ton.	38.00	—
625 mesh, micronized, ngs. c.l. works	ton.	80.00	—
ord., Calif., grd., bgs., c.l., works	ton.	34.00	39.50
Vermont, off-color grd., bgs., c.l., works	ton	19.40	—
bgs., l.c.l. works	ton.	37.00	—
Imp., Canadian, grd. bgs., c.l. mines	ton.	20.00	35.00
Tall oil, crude, dms., c.l., works	lb.	.04½-	.04¾
tanks, works	lb.	.02¾-	.03
Dist., depending on grade, dms., c.l., works	lb.	.07¾-	.10
dms., l.c.l., works	lb.	.08	.10¼
tanks, works	lb.	.05¾-	.08
Refd., depending upon grade, dms., c.l., works	lb.	.07¼-	.09¼
dms., l.c.l., works	lb.	.07½-	.09¾
tanks, works	lb.	.05¼-	.07¼
Tall oil acids, dms., c.l., works	lb.	.07	.10
dms., l.c.l.	lb.	.07½-	.10½
tanks, works	lb.	.05	.08
Tallow, edible, tanks, dlvd.	lb.	.06¼-	.06½
Inedible, fancy, bleachable, tanks,	lb.	.06	.06⅛
fancy, guaranteed, bulk, f.o.b. steamer	lb.	.06½-	—
dms., f.a.s.	lb.	.07½-	—
tanks, dlvd.	lb.	.06¼-	.06⅜
No. 1, tanks, dlvd	lb.	.05½-	.05⅝
prime, tanks, dlvd	lb.	.05⅜-	.05⅞
special, tanks, dlvd	lb.	.05⅛-	.05¾
sulfonated, 25%, bbls., l.c.l.	lb.	.08½-	.08¾
50%, bbls., l.c.l.	lb.	.10½-	.11
Tallow acids, dist., dms.	lb.	.13¼-	.15¾
tanks	lb.	.10¾-	—
Hydrogenated, dms.	lb.	.14¾-	.17¼
Tallow oil, acidless, dms. c.l.	lb.	.13½	Nom.
dms., l.c.l.	lb.	14½	16
Tangerine oil, Florida, dms.	lb.	3.75	4.75
Tankage, animal, feeding, 9-11% ammonia, New York bulk,	unit-ton.	5.25	5.75
Tannic acid, NF fluffy bbls. 1,000-lb lots	lb	2.05	—
bbls., smaller lots	lb	2.06	2.07
NF, powd., bbls., 1,000-lb. lots	lb.	1.95	—
bbls., smaller lots	lb	1.96	1.99
Tech., dms	lb	1.05	—
Tansy oil, dms.	lb.	6.60	8.00
Tar acid oil, 15-18%, dms., c.l., frt. equald	gal.	.53½-	—
dms., l.c.l., same basis	gal.	.55½-	—
tanks, same basis	gal.	.43½-	—
25-28%, dms., c.l., same basis	gal.	.60	—
dms., l.c.l., same basis	gal.	.62	—
tanks, same basis	gal.	.50	—
50-53%, dms., c.l., same basis	gal.	.75	—
dms., l.c.l., same basis	gal.	.77	—
tanks, same basis	gal.	.65	—
Tar coal (see Coaltar)			
Tartar emetic (see Antimony potassium tartrate).			

A friend in need

Our technical service is a friend in need to help you solve your problems involving white pigmentation.

In fact, the solution you seek may well be contained in one of our Technical Tips for TITANOX®. We'll be happy to send you, on request, a useful book of these Tips. (And, of course, our local representative is ready to consult with you at any time and to enlist the cooperation of our Technical Service Department). Titanium Pigment Corporation, 111 Broadway, New York 6, N. Y.; offices and warehouses in principal cities. In Canada: Canadian Titanium Pigments Ltd., Montreal.

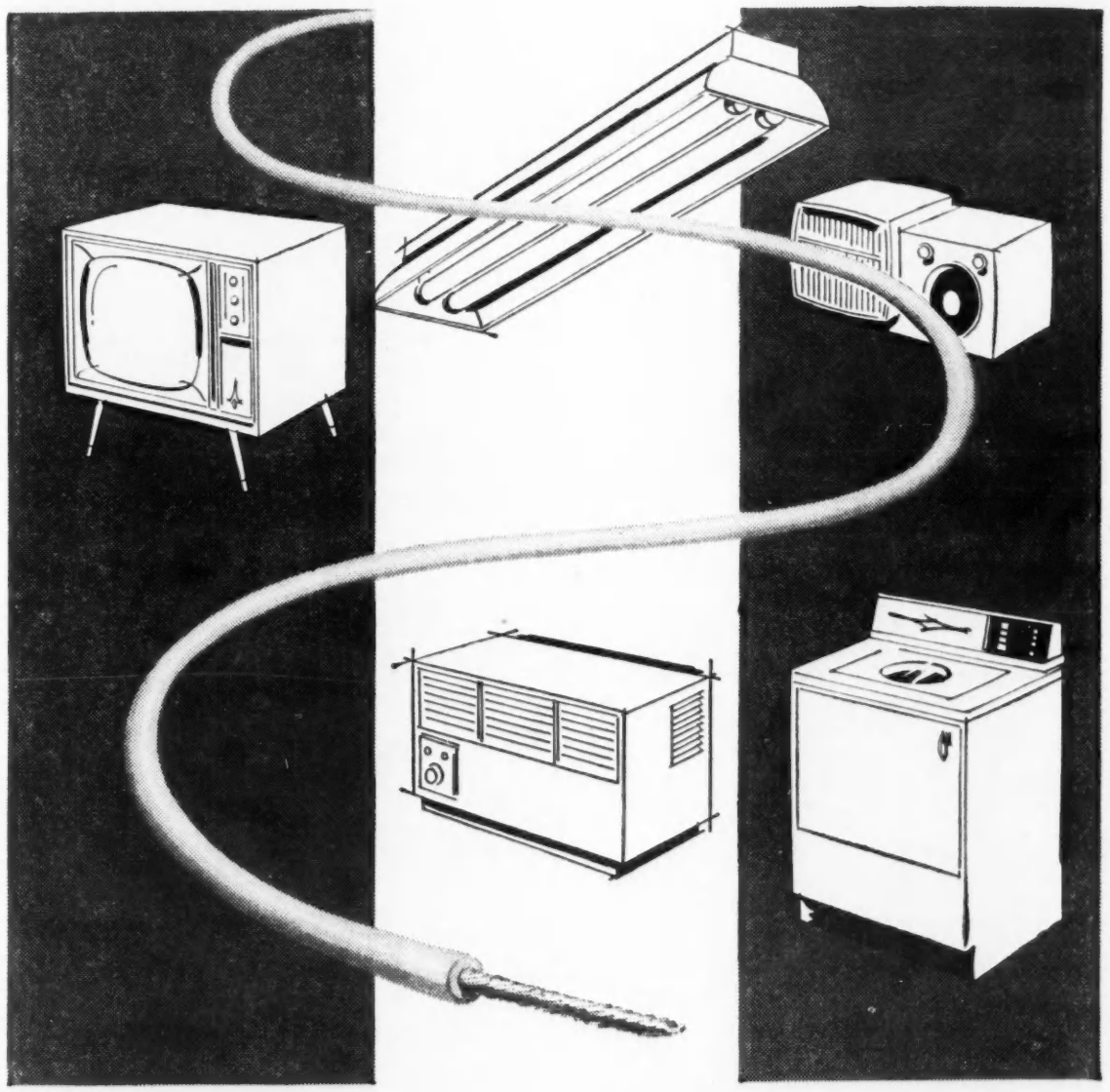
TITANIUM PIGMENT CORPORATION
SUBSIDIARY OF NATIONAL LEAD COMPANY

Tartaric acid, NF, 100-lb. bgs., c.l., frt. equald lb. .41 • —
bgs., 10,000 lbs., 1 shipt., same basis lb. .43 • —
bgs., smaller lots, same basis. lb. .47 • —
Terpine hydrate, NF, cryst., powd., 100-lb. fib. dms lb. .70 • —
Terpineol, extra, dms. ..... lb. .50 • .60
Prime, dms. ..... lb. .40 • .50
Terpinyl acetate, extra, cns., dms. lb. .64 • .75
Prime, dms. ..... lb. .53 • .56
Terpinyl propionate, dms. ..... lb. 1.75 • 3.00
Terra alba (see Gypsum).
Testosterone, USP, bots. .... gram. No prices.
Testosterone proprionate, USP, bots. gram. No prices.
Tetrachloroethane, dms., works lb. .14½ • —
Tetrasodium pyrophosphate (see Sodium pyrophosphate).
Tetrachloroethylene, tech (see Perchloroethylene).
Tetrachloroethylene, USP, 55-gal. dms., c.l., t.l., works lb. .20½ • —
dms., l.c.l., works ..... lb. .22 • .23½
Tetraethyl orthosilicate, dms., c.l., dlvd. E lb. .60 • —
dms., l.c.l., dlvd. E ..... lb. .61½ • —
Tetraethyl pyrophosphate, 40%, cns., dms., frt equald lb. 75 • —
Tetraethylenepentamine dms., c.l., dlvd E lb. .53½ • —
dms., l.c.l., dlvd. E. ..... lb. .55 • —
tanks, dlvd E. ..... lb. .51 • —
Tetraethylthiuram disulfide, tech., dms., frt alld lb. 1.04 • —
Tetrahydrofuran, dms. c.l., t.l., works lb. .36½ • —
dms., l.c.l., or l.t.l., works ... lb. .37 • —
tanks, works ..... lb. .33 • —
Tetrahydrofurfuryl alcohol, dms., c.l., t.l., Memphis, Tenn. lb. .31½ • —
dms., l.c.l., Memphis, Tenn lb. .32½ • —
dms., c.l., t.l., Newark, N.J lb. .33½ • —
dms., l.c.l., Newark, N.J .... lb. .34½ • —
tanks, dlvd E. of Denver .... lb. .31 • —
tanks, dlvd W of Denver .. lb. .32 • —
Tetrahydrophthalic anhydride, dms., c.l., t.l., frt. alld. E lb. .39 • —
l.c.l., l.t.l., same basis ..... lb. .41 • —
Tetrapotassium phosphate (see potassium phosphate)
Thallium metal dlvd ..... lb. 7.50 -10.00
Thallium sulfate, 99% bots., dlvd. lb. 5.00 -10.00
Theobromine, NF, fib. dms., 100-lbs., f.o.b., works lb. 4.40 - 4.75
Theobromine and sodium acetate, USP, fib. dms., 500-lbs. works. lb. 6.45 • —
Theobromine sodio-salicylate, NF, fib. dms., 500-lbs., works lb. 3.80 • —
Theophyline, USP, anhyd., 100-lb. dms., frt. alld lb. 3.63 • —
Thiamine hydrochloride, USP, fib. dms., frt. alld kilo.36.00 • —
USP, ampule grade, fib. dms., frt. alld kilo.28.00 • —
Thiamine mononitrate, USP, fib. dms., frt. alld kilo.36.00 • —
Thiocarbanilide, dms., ton lots lb. 72 • —
dms., less ton lots ..... lb. 74 • —
Thiodiphenylamine (see Phenothiazine).
Thioflavin green toner, brilliant, molybdated, PMA, kgs., works lb. 5.20 • —
Tungstated, PTMA, kgs., works, lb. 6.20 • —
Thioglycolic acid, refd., 55 gal. dms., ton lots, 100% basis lb. 1.15 • —
Thiosalicylic acid, 80%, dms., 1,000-lb., lots, works lb. 4.00 • —
Thiourea, tech., bgs., t.l., frt. alld. lb. .30 • —
bgs., ton lots, same basis .. lb. .32 • —
bgs., less than ton lots, same basis lb. 33 • —
Thorium nitrate, purif., fib. dms., 100-lb. lots or more, works lb. 3.50 • —
dl-Threonine, bots., 1-kilo lots. kilo.275.00 • —
Thyme leaves, French, bgs. .... lb. .29 • —
Spanish, bgs. ..... lb. .14 • —
Thyme oil, NF, red, cns., dms. lb. 1.90 - 2.25
NF, white, cns ..... lb. 2.20 - 2.60
Tech. white cns ..... lb. .40 - 1.85
Thymol, fib. dms., 25-lbs., f.o.b. works. lb. 3.06 • —
Thymol iodide, NF, dms., 100-lbs. f.o.b. works lb. 7.40 • —
Timbo root (see Cube root).
Tin chloride (see Stannous chloride, anhyd.).
Tin crystals (see Stannous chloride, hydrous)
Tin metal (Straits) ..... lb. 1.00 • —
Tin oxide (see Stannic oxide).
Tin sulfate (see Stannous sulfate).
Tin tetrachloride, anhyd. (see Stannic chloride anhyd.).
Titanium dioxide, anatase, ceramic, bgs., c.l., dlvd lb. .25½ • —
bgs., l.c.l., dlvd ..... lb. .26½ • —
reg., bgs., c.l., dlvd ..... lb. .25½ • —
bgs. l.c.l., dlvd ..... lb. .26½ • —
metallurgical, nat., bgs., c.l., f.o.b. Jacksonville Fla ton.180.00 • —
bgs., 5-ton lots, Niagara, Falls, N.Y. ton.203.00 • —
bgs., ton lots, same basis. ton.215.00 • —
Milled metallurgical titanium dioxide $7.50 per ton higher.
Titanium dioxide, rutile, non-chalking, bgs., c.l., dlvd. E lb. .27½ • —
bgs., l.c.l., dlvd. E ..... lb. .28½ • —
Titanium dioxide-calcium pigment, 30% Ti O_2, reg., bgs., c.l., dlvd lb. .09¾ • —
bgs., l.c.l., works ..... lb. .09⅞ • —
50% Ti O_2, high-tinting, dms. c.l. lb. .14¾ • —
dms., l.c.l. ..... lb. .14⅞ • —
Titanium hydride, powd., dms., works lb. 8.10 - 9.00
Titanium tetrachloride, tech., dms., c.l., works lb. .26 • —
dms., l.c.l., works ..... lb. .27½ • .29
tanks, works ..... lb. .20 • —
Tobias acid, dms., c.l., t.l. ..... lb. .78 • —
dms., l.c.l. ..... lb. .81 • —
d-a Tocopherols, NF, mixer, conc., pure basis, bots kilo.67.00 • —
d-a-Tocopheryl acetate, NF, conc., pure basis, bots kilo.122.00 • —
d-a-Tocopheryl acid succinate, cryst., bots. kilo.109.00 • —
dl-a-Tocopherol, bots ..... kilo.99.00 • —
dl-a-Tocopheryl acetate, bots... kilo.90.00 • —
25% dry, powd., bots. ..... kilo.22.50 -24.00
33⅓ dry, powd., bots. ..... kilo.30.00 -31.50
o-Tolidine base, dry, kgs., 100% basis lb. 1.55 • —
Paste, kgs., 100% basis ..... lb 1.50 • —

TOLUOL
Toluol quotations, both coaltar and petroleum, may be found under Toluene.

o-Tolidine hydrochloride, paste, kgs., 100% basis lb. 1.50 • —
Tolu balsam, cns. ..... lb. 3.00 - 3.25
Toluene, coaltar, indust. or nitration tanks, dlvd. E. of Rockies gal. .25 • —
Toluene, petroleum indust., tanks, dlvd E. of Rockies gal. .25 • .33
p-Toluenesulfonamide, powd., dms., t.l., works lb. .60 • —
dms., l.t.l., same basis ..... lb. .63 • —
Toluenesulfonic acid, 55-gal. dms., t.l., frt. alld lb. .16 • —
1,000-lb. or more, same basis lb. .18 • —
less than 1,000-lb., same basis lb. .23 • —
tanks, same basis ..... lb. .14 • —
Toluenesulfonic acid in 10-gal. dms., 2c. per lb. more.
p-Toluenesulfonic acid monohydrate, dms., c.l. or t.l. lb. .90 • —
dms., 125 lbs. to t.l..... lb. 1.00 • —
m-Toluidine, dms., c.l., works, frt. alld lb. .83 • —
dms., l.c.l., same basis ..... lb. .84 • —
tanks, same basis ..... lb. .82 • —
o-Toluidine, dms., c.l., works, frt. alld lb. .30 • —
dms., l.c.l., same basis ..... lb. .31 • —
tanks, same basis ..... lb. .23 • —
p-Toluidine, tech., flake, dms., frt. alld lb. .50 • —
Cast, dms frt. alld ..... lb. .45 • —
p-Toluidine-m-sulfonic acid, dms., works lb. .92 - 1.04
Toluidine red toner, deep shades, kgs., works lb. 1.70 • —
Light shades, kgs. works. ..... lb. 1.70 • —
2,4-Tolylenediamine, cryst., fib. dms., l.c.l., frt. alld lb 1.10 • —
Tonka beans, Angostura, cks. .... lb. 1.50 • —
Brazilian, Surinam, cs. ..... lb. 1.70 • —
Totaquine, 100-oz. lots, cns. ..... oz. .42 • —
Toxaphene, dms. c.l., t.l., works lb .22 • —
dms., l.c.l., l.t.l., works ..... lb. .28 • —

Tragacanth gum, No. 1, ribbons, cs ..lb. 3.85 - 3.90
No. 2, cs ..... lb. 3.40 - 3.60
No. 3, cs ..... lb. 3.15 - 3.25
USP, powd., bbls. ..... lb. 1.05 - 1.15
Triacetin, dms., c.l., dlvd. E. of Rockies lb. .39 • —
dms., l.c.l., same basis. ..... lb. .40 • —
tanks, same basis. ..... lb. .37 • —
Triallylamine, dms., c.l., dlvd. ..lb. .983 • —
dms., l.c.l., dlvd. ..... lb. .995 • —
tanks, dlvd. ..... lb. .96 • —
Tributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver, lb. .42½ • —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .43½ • —
tanks, frt. alld. E. of Denver lb. .40 • —
Tributyl phosphate, dms., c.l., works, lb. .52½ • —
dms., l.c.l., same basis. ..... lb. .53½ • —
tanks, same basis. ..... lb. .50 • —
Tributylamine dms., c.l., works lb. .67½ • —
dms., l.c.l., same basis..... lb. .69 • —
tanks, same basis. ..... lb. .65 • —
Tributyrin, dms., l.c.l., dlvd. ....lb. .69 • —
Trichloroacetic acid, bots. .... lb. 2.00 - 3.50
Trichlorobenzene, dms., c.l., frt. alld. E lb. .15 • —
dms., l.c.l., frt. alld E. ..... lb. .16 • —
tanks, frt. alld E. ..... lb. 13¼ • —
Trichlorobenzene prices in the West 1¾c. higher.
1,1,1-Trichloroethane, dms., c.l., dlvd. lb. .13½ • —
dms., l.c.l., dlvd. ..... lb. .16¼ • —
tanks, dlvd. ..... lb. .12¼ • —
1,1,2-Trichloroethane, dms., c.l., works lb. .13½ • —
dms., l.c.l., dlvd. E. ..... lb. .14¼ • —
tanks, works ..... lb. .11½ • —
Trichloroethylene, dms., c.l., or t.l., dlvd lb. .14 • —
dms., l.c.l., dlvd. ..... lb. .15¼ • —
tanks, dlvd. ..... lb. .12¼ • —
Trichloroisocyanuric acid, dms., c.l., t.l., frt. equald lb. .65 • —
dms., l.c.l., same basis ..... lb. .75 • —
Trichlorophenoxyacetic acid (see 2,4,5-T).
Tricholine citrate, 65% soln., ret cbys., works, frt. adjusted. lb. 1.40 1.43
Tricresyl phosphate, coaltar, dms., c.l., dlvd lb. .35 • —
dms., l.c.l., dlvd. ..... lb. .36 • —
tanks, dlvd. ..... lb. .32½ • —
Tricresyl phosphate, petroleum, dms., c.l., dlvd lb. .34½ • —
dms., l.c.l., dlvd. ..... lb. .35½ • —
tanks, dlvd. ..... lb. .32½ • —
Tridecyl alcohol, mixed isomers, dms., c.l., dlvd. E lb. .26½ • —
dms., l.c.l., dlvd. E ..... lb. .28 • —
tanks, dlvd. E ..... lb. .24 • —
Triethanolamine, dms., c.l., dlvd E. lb. .24½ • —
dms., l.c.l., same basis ..... lb. .26 • —
tanks, same basis ..... lb. .22 • —
Triethanolamine lauryl sulfate, dms., c.l., t.l., frt. alld lb. .25½ • —
dms., l.t.l., frt. alld. ..... lb. .26½ • —
tanks, frt. alld ..... lb. .24½ • —



TRIDECYL ALCOHOL

To make DTDP—new low cost plasticizer for high temperature vinyl insulation

Enjay Tridecyl Alcohol is a basic ingredient of ditridecyl phthalate (DTDP), a new high performance plasticizer developed by Enjay Laboratories. DTDP is ideally suited to the manufacture of high temperature vinyl insulation for the electrical industry. The use of this plasticizer will substantially reduce costs at no sacrifice in electrical and mechanical properties. Enjay does not make ditridecyl phthalate but supplies Tridecyl Alcohol for its manufacture.

For further information *about Enjay Tridecyl Alcohol, write or call our nearest office for a copy of Technical Bulletin No. 20.*

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Akron • Boston • Charlotte • Chicago • Detroit • Los Angeles • New Orleans • Tulsa

Triethylamine—Watchung Type Reds

Triethylamine, dms., c.l., dlvd E	lb	.50	—
dms., t.c.l., same basis	lb	.51½	—
tanks, same basis	lb	.47½	—
Triethyl citrate, refd., tech., non-ret dms., c.l., frt alld E. of Denver	lb.	.46¼	—
non-ret dms., t.c.l., frt alld. E of Denver	lb.	.47¼	—
tanks, frt alld E of Denver	lb.	.43¾	—
Triethyl phosphate, dms., c.l., dlvd.	lb	.40½	—
dms., t.c.l., dlvd.	lb	.41½	—
tanks, dlvd	lb	.38 -	—
Triethylene glycol, dms., c.l. dlvd. E	lb	.21	—
dms., t.c.l., dlvd E.	lb	.22½	—
tanks, same basis	lb	.18½	—
Triethylenetetramine, dms., c.l., dlvd E	lb	.51½	—
dms., t.c.l., dlvd E.	lb	.53 -	—
tanks, dlvd E	lb	.49 -	—
Triisobutylene, tanks, dlvd	lb.	.08 -	—
Tri-isopropanolamine, dms., c.l., dlvd E	lb	.23¼	—
dms., t.c.l., dlvd E.	lb	.24¾	—
tanks, dlvd E	lb.	.20¾	—
Trimethylamine, anhyd., cyls., l.c.l., frt. equald, 100% basis	lb.	.30 -	.305
tanks, frt. equald, 100% basis,	lb.	.26 -	—
25-40% soln., dms., c.l., frt. equald, 100% basis	lb.	.35 -	—
dms., t.c.l., frt. equald, 100% basis	lb.	.35½	—
tanks, 100% basis, frt. equald	lb.	.26 -	—
Trimethylolpropane, dms., c.l., t.l., dlvd. E	lb.	.35 -	—
dms., t.c.l., t.t.l., same basis	lb.	.36 -	—
Trioxane, pure, dms. c.l., t.l. works.	lb.	.50 -	—
dms., t.c.l., works	lb.	.51½	—
Tripentaerythritol, bgs., c.l., t.l., dlvd. E	lb.	.40 -	—
bgs., t.c.l., t.t.l., dlvd E	lb.	.41 -	—
Triphenyl phosphate, bbls., c.l., frt equald	lb.	41½	—
bbls. t.c.l. frt equald	lb.	42½	—
Triphenylguanidine, bbls. works.	lb.	.90 -	—
Tripropylene, dms., c.l., dlvd. E	gal.	.44 -	—
dms., t.c.l., same basis	gal.	.54 -	—
tanks, same basis	gal.	.23 -	—
Tripropylene glycol, dms., c.l., t.l., frt. alld. E	lb.	.20½	—
dms., t.c.l., t.t.l., frt. alld. E	lb.	.22 -	—
tankcars and compartmented tankcars, frt alld. E	lb.	.17½	—
Tripropylene glycol, tankwagon and compartmented tankwagons, 1,000 gals. min., frt. alld. E.	lb.	.18 -	—
Tripropylene glycol prices 1c per lb higher in West.			
Trisodium phosphate (see Sodium phosphate tribasic).			
dl-Tryptophane, fib., dms., works.	lb	55.00	—
Tung oil, dms., c.l., New York	lb.	.23¾	—
dms., t.c.l., New York	lb.	.24 -	.24½
tanks, imported, N. Y.	lb.	.21¾	.22
tanks, domestic, mills	lb.	.21⅜	.21½
Tungsten metal, powd., 2.6-2.8 microns, dms., works	lb.	4.25 -	—
Tungstic acid, tech., dms., 1,000-lb. lots, works	lb	2.25 -	—
dms., smaller lots, works	lb	2.45 -	—
Turkey red, bbls, works	lb.	.62 -	—
Turpentine, gum (see Protective Coatings market, Naval Stores).			
Turpentine oil, NF, cns, dms	lb.	.28 -	.50
Tuscan red, bbls, frt, equald	lb.	.26 -	.32
Tyrothricin, USP, 1 to 5 kilos gram.		.54 -	—

U

Ultramarine blue, cobalt type, dry or pulp, 250-lb bbls., dlvd. E of Rockies	lb	.35 -	.39½
Jobbing types, bbls., same basis	lb.	.19 -	—
Regular types, dry, bbls., same basis	lb.	.22½	.35
Ultramarine blue prices 1c higher W of Rockies			
Umber pigment, burnt, American, bgs., c.l. works	lb.	.07½	.07¾
bgs., t.c.l. works	lb.	.07¾	.08
Burnt, turkey-type, bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N. Y.	lb.	.08¼	—
Raw, American, bgs., works	lb.	.07¾	.08¼
Turkey type, bgs., works	lb.	.08½	.08¾
Undecylenic acid, dms	lb.	1.28 -	—
Unicorn root, false (see Helonias root)			
Unicorn root, true (see Aletris root).			
Urea, 46% N, indust, bgs., c.l. t.l., dlvd E	ton.	125.00 -	—
bgs., t.c.l. dlvd E ex whse.	ton.	145.00 -	—
45% N, agricultural, bgs., c.l., (30 tons) dlvd E	ton.	103.00 -	—
Urea-ammonia liquor, A, B, C & F grades, N basis, tanks, frt. equald	ton.	120.00 -	—
37 grade, tanks same basis	ton.	145.00 -	—
Urethane, USP, dms, t.l., f.o.b., works	lb	65 -	—
dms., t.t.l., same basis	lb.	70 -	—
Uva-ursi leaves, bls	lb.	.12 -	—

V

Valerian root, Belgian, bgs.	lb.	.32 -	—
Indian, bgs.	lb	25 -	—
dl-Valine, dms, works	lb.	21.00	27.50
Vanadium pentoxide, tech., dms., works	lb	1.28	1.33
Vandyke brown, bbls, works	lb.	.09½	.12
Vanilla beans, Bourbon, tins	lb.	14.25 -	—
Mexican, cuts, tins	lb.	14.25 -	—
whole, tins	lb.	14.75 -	—
Vanillin ex lignin, 100 lb fib dms., 1,000-lb lots or more	lb	3.00 -	—
100-lb fib dms, 500-lb lots	lb	3.10 -	—
100-lb fib dms, cns, 100-lb lots	lb	3.25	3.35
Venetian red, jobbing, bgs, works.	lb	0475-	—
Venetian red, 20% bgs, works	lb	0525-	—
25% bgs., works	lb	0575-	—
30% bgs, works	lb	06 -	—
35% bgs, works	lb	0625-	—
40% bgs, works	lb	0675 -	—
Vetiver oil, Bourbon, cns.	lb.	16.50	-17.50
Haitian, cns.	lb.	14.00	-15.50
Victoria blue toner, molybdated-PMA, 250 lb bbls, dlvd E of Rockies	lb.	4.50	4.95
Tungstated-PTMA, 250-lb. bbls., dlvd. E of Rockies	lb.	5.55 -	—
Victoria blue toner, bbls., prices 1c higher W of Rockies			
Vinyl acetate monomer, zone 1, 55-gal dms., c.l. dlvd	lb	.20 -	—
55-gal dms, t.c.l. dlvd	lb	.21½	—
tanks, dlvd	lb.	.17½	—
tanktrucks, less than 4,000 gal., dlvd	lb	18	—
Zone 2, 55 gal. dms., c.l., dlvd	lb.	.21 -	—
55-gal dms., t.c.l., dlvd	lb.	.24 -	—
tanks, dlvd.	lb.	.18½	—
tanktrucks, less than 4,000 gals., dlvd	lb.	.19 -	—
Zone 1 is all continental US except zone 2, zone 2 comprises Ariz., Calif., Idaho, Mont., Nev., Ore., Utah and Wash			
Vinyl n-butyl ether, tech., dms., t.c.l., works	lb.	.50 -	—
Vinyl chloride monomer, tanks, works	lb.	.125 -	—
Vinyl ether, USP, anesthesia, bots., 50cc., hospitals	bot.	1.12 -	—
bots., 75cc., hospitals	bot.	1.56 -	—
Vinyl ethyl ether, tech, dms., c.l., works	lb.	.29¼	—
dms., t.c.l., works	lb.	.30 -	—
tanks, works	lb.	.27¼	—
Vinyl propionate monomer, dms., c.l. dlvd	lb.	.49 -	—
dms., t.c.l. same basis	lb	.50 -	—
tanks, same basis	lb	.47 -	—
Vinyl trichloride (see Trichloroethane).			
2-Vinylpyridine, 10 dms to tanks, works	lb.	1.20 -	—
1 to 9 dms., works	lb.	1.35 -	—
tanks, works	lb.	1.15 -	—
Vinyltoluene, dms., c.l., f.o.b., works.	lb.	.16½	—
dms., t.c.l., same basis	lb.	.18½	—
tanks, f.o.b. dest, frt prepaid	lb.	.14 -	—
Viosterol, in nat. vegetable oil, 1,000,000 D units per gram, bots., lots of 10 billion USP units 1,000,000 units.		.02½	—
Virginia type red, bbls, works	lb.	1.40 -	—
Vitamin A acetate, syn., cryst., beads 500,000 A units per gram	gram	.07¼	—
Vitamin A acetate, dry 500,000 units per gram, kilo lots	kilo.	65.00 -	—
325,000 units per gram, same basis	kilo	43.88 -	—
250,000 units per gram, same basis	kilo.	33.75 -	—
Dry vitamin A acetate in less than kilo lots, $1.25 to $2.50 per kilo higher.			
Vitamin A, liq in oil, 1,000,000 A units per gram, 1,000,000 units.		.09½	—
Vitamin A palmitate, liq., 1,000,000-1,800,000 A units per gram 1,000,000 units.		.09½	—
1,000,000 A units per gram, 1,000,000 units.		.09½	—
Vitamin B_1 (see Thiamine hydrochloride).			
Vitamin B_2 (see Riboflavin and Yeast).			
Vitamin B_{12}, cryst., USP (cyanocobalamin), 1-50 grams, vials, tons	gram.	120.00 -	—
0.1% vitamin B_{12} USP, adsorbed on gelatin 100 and 500-gram bots, on 1-5 kilo dms.	gram.	1.43 -	—
0.1% vitamin B_{12}, USP adsorbed on resin, 100 and 500-gram bots., 1-5 kilo dms	gram.	1.43 -	—
Vitamin B_{12}, oral grade solids, in containers of 1 and 10 gram of B_{12} activity	gram.	110.00 -	—
0.1% trituration of cryst., B_{12} with dicalcium phosphate or mannitol, 1-10 kilo	kilo.	138.00 -	—
Vitamin B_{12}, 0.1% cobalamin concentrate NF, adsorbed on resin, 500-gram bots., 1-5 kilo dms., frt. alld	gram.	1.15 -	—
0.1% cobalamin concentrate in gelatin, 1-10 kilo dms., frt. alld	gram.	1.15 -	—
Vitamin C (see Ascorbic acid)			
Vitamin D (see Codliver and Fish-liver oils, Calciferol and Viosterol)			
Vitamin D_2, dry, 850,000 units per gram, kilo lots	kilo	42.50 -	—
850,000 units per gram less than kilo lots	kilo	45.00 -	—
Vitamin E (see a-Tocopherol and Wheat germ oil)			
Vitamin G (see Riboflavin).			
Vitamin H (see Biotin)			
Vitamin K, active (see Menadione).			
Vitamin K_1, 25 gram bots	gram.	4.50	—
Violet methyl toner (see Methyl violet toner)			
VM&P naphtha (see Naphtha, VM&P, petroleum).			

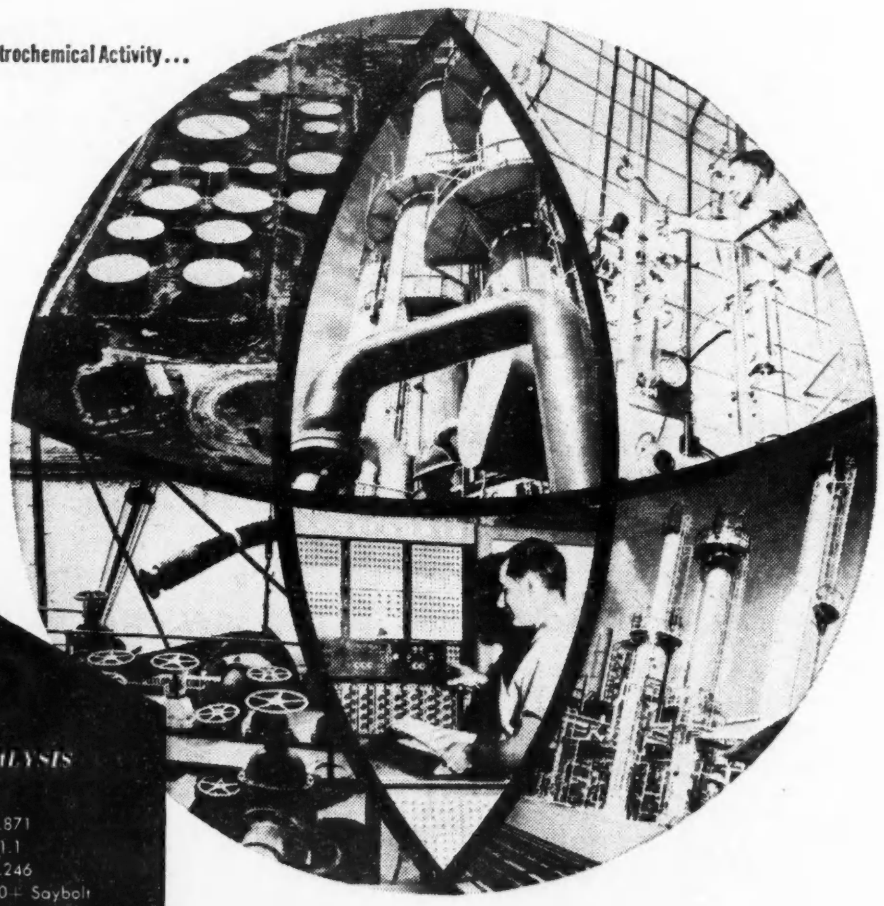
W

Wahoo root bark, bls.	lb.	2.00 -	2.25
Warfarin, 0.5%, dms., 50-lb. lots, dlvd	lb.	1.95 -	—
dms., 25-49-lb. lots, New York or Chicago	lb.	2.05 -	—
dms., 5-24-lb. lots, New York or Chicago	lb	2.15 -	—
Watchung-type reds, bbls	lb	1.95 -	—

WAXES

Wax quotations are listed individually. For example, prices on Wax, carnauba, may be found in the C's under Carnauba wax.

from the Delhi Sphere of Petrochemical Activity...



TYPICAL ANALYSIS

Sp. Gr. 15.56/15.56°C	0.871	
API Gravity	31.1	
Weight, Lbs/Gal	7.246	
Color	30+ Saybolt	
Acid Wash Color	Less than No. 1 Standard	
Acidity	No free acid	
Sulfur Compounds	No H_2S or SO_2 or Thiophene	
K. B. No. Toluene-105	101	
Distillation		
First Drop	138.0°C	280°F
Dry Point	141.0°C	286°F
Flash TCC	82°F	

DELHI 5° XYLENE

...high solvency thru high purity

Strict adherence to rigid process control standards at Delhi-Taylor pays off in purity products. Delhi-Xylene is a case in point. Its purity is evident in its consistently high KB value, indicative also of its high solvency for paints, inks and other products.

You can depend upon the quality and uniformity of Delhi petrochemicals and are assured of efficient and courteous service.

Delhi 5° Xylene, Benzene, Toluene and other petrochemicals are available by barge, tank car or tank truck from our plants and bulk terminals.

DELHI

CHEMICAL DIVISION

DELHI-TAYLOR OIL CORPORATION

CORRIGAN TOWER, DALLAS 1, TEXAS

415 MADISON AVE., NEW YORK 17, N. Y.

CORPUS CHRISTI • CHICAGO • CHARLESTON, S. C. • BATON ROUGE • HOUSTON

Wheat germ oil, 5-gal. dms... gal. 12.25 - —
White lead (see Lead, white).
White mineral oil (see Mineral oil, white).
White pine bark, rossed, bls.... lb. .21 - .22
White precipitate, USP, powd. dms., lb. 6.55 - —
Whiting (see Calcium carbonate).
Wild cherry bark, thin, nat., bls. lb. .22 - —
Thin, rossed, bls. lb. .22 Nom.
Wintergreen oil, USP, nat., northern, cns lb 6.35 -17.50
USP, nat., southern, cns. .... lb. 3.75 - 7.00
Wintergreen oil, syn. (see Methyl salicylate).
Witch hazel bark, bls. .... lb. .16 - .17
Witch hazel leaves, bls. .... lb. .28 - .30
Wollastonite, fine, bgs., c.l., works, ton 39.50 - —
bgs., l.c.l., ex whse. .... ton 56.00 - —
Medium, bgs., c.l., works .. ton 27.00 - —
bgs., l.c.l., ex whse. .... ton 44.00 - —
Wood alcohol (see Methanol).
Wood oil (see Tung oil).
Woolfat, crude (see Degras).
Woolfat, USP (see Lanolin).
Wormseed, Levant bgs .... lb. 2.50 - —
Wormseed oil (see Chenopodium oil NF).
Wormwood oil, cns. .... lb. 4.75 - 5.00

X

Xylene, coaltar, indust., tanks, works:
Bethlehem, Pa. .... gal. .29 - —
Birmingham dist. .... gal. .29 - —
Chicago dist. .... gal. .28½ - —
Cleveland dist. .... gal. .29 - —
Geneva, Utah .... gal. .29 - —
Johnstown, Pa. .... gal. .29 - —
Lackawanna, N. Y. .... gal. .29½ - —
Lone Star, Tex. .... gal. .27 - —
Lorain, Ohio .... gal. .29 - —
Middletown, Ohio .... gal. .29 - —
Minnequa, Col. .... gal. .29 - —
Philadelphia dist. .... gal. .29 - —
Pittsburgh dist. .... gal. .29 - —
Sparrows Point, Md. . gal. .29 - —
Terre Haute, Ind. .... gal. .29 - —
Youngstown, Ohio .... gal. .29 - —
f.o.b. works:
Xylene, petroleum, indust., tanks
Bayonne, N. J. .... gal. .29 - —
Baytown, Tex. .... gal. .27 - —
Charleston, S. C. .... gal. .29 - —
Chicago, Ill. .... gal. .28½ - —
Detroit, Mich., dlvd. .. gal. .27½ - .29
Houston, Tex. .... gal. .27 - —
Philadelphia, Pa. .... gal. .29 - —
Providence, R. I. .... gal. .30 - —
Sewell's Point, Va. .... gal. .28 - —
Wood River, Ill .... gal. .28½ - —
m-Xylene, dms., c.l., works .... lb. .08 - —
dms., l.c.l. works .... lb. .09 - —
tanks, works .... lb. .06½ - —
o-Xylene, dms., c.l., works .... lb. .20 - —
dms., l.c.l., works .... lb. .21 - —
tanks, frt. alld. .... lb. .1645 - —
Xylenol, cryst., 45°-47° C., m.p., dms., l.c.l., works lb. .23 - —
56°-58° C., m.p., dms., l.c.l., works, frt. equald lb. .33 - —
60°-62° C., m.p., dms., l.c.l., same basis lb. .40 - —
Xylenol fraction, b.r. 7°-9° C., dry above 227° C., dms., c.l., same basis gal 1.25 - —
dms., l.c.l., same basis gal 1.30 - —
tanks, same basis .... gal 1.05 - —
b.r. 7°-9° C., dry at or below 227° C., dms., c.l., same basis, gal. 1.35 - —
dms., l.c.l., same basis gal. 1.40 - —
tanks, same basis .... gal 1.15 - —
2,4-Xylidine, tech., dms. frt. alld. lb. 1.15 - —
2,5-Xylidine, tech., dms. frt. alld. lb. 1.20 - —
Xylidines, mixed, o-m-p, dms., c.l., or t.l., works lb. .39 - —
dms., l.c.l., same basis .... lb. .40 - —
tanks, same basis .... lb .38 - —

XYLOL
Xylol quotations, both coaltar and petroleum, may be found under Xylene.

Y

Yara yara oil, cns. .... lb. 2.15 - 3.03
Yeast, brewers, debittered, USP, Saccharomyces dlvd lb. .27 - —
dry, USP, 50 int'l B units per gram, 100-lb. dms .... lb. .47 - —
USP, 90 int'l B units per gram, 100-lb. dms lb. .52 - —
USP, 200 Int'l B units per gram, 100-lb. dms .... lb. .56 - —
USP, 300 Int'l B units per gram, 100-lb. dms lb. .60 - —
Torula, USP, dlvd .... lb. .18 - —

YELLOW PIGMENTS
Yellow pigment quotations are listed individually. For example, prices on Yellow, benzidine, may be found in the B's under Benzidine yellow.

Yerba santa leaves, bls. .... lb. .40 - .45
Ylang-ylang oil, Bourbon, bots lb. 7.00 -22.00
extra, bots. .... lb. 28.00 -33.00
Yohimbine hydrochloride, bots., tins, oz. 3.75 - 4.23

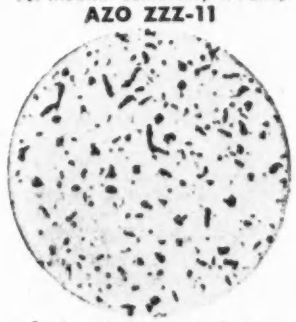
Z

Zein, bgs., 36,000-lb. lots or more, bgs., 500-lb lots or more, dlvd. lb. .343 - —
bgs. smaller lots, dlvd .... lb. .373 - —
Zinc acetate, NF, VIII, dms. .... lb. .53 - —
Tech., dms. t.l.l. works lb. .29½ - —
Zinc borate, bgs., 1,000 lbs or more, works lb. .25 - —
bgs., less than 1,000 lbs. same basis lb. .27 - —
Zinc chloride, NF, gran. dms lb. .42 - —
NF, precip. powd. dms .... lb. .26 - —
Tech. soln. 50%, dms. c.l., works, 100 lbs 5.30 - —
dms., l.c.l., works .. 100 lbs. 6.40 - —
tanks, works .... 100 lbs. 5.15 - —
fused, dms., c.l., works 100 lbs. 10.70 - —
dms. l.c.l. works 100 lbs. 11.20 - —
gran., fib. dms., c.l., works, 100 lbs. 11.45 - —
fib dms. l.c.l. works 100 lbs. 11.95 - —
Zinc chromate, bbls., dlvd. .... lb. .29 - —
Basic, bbls., dlvd. .... lb. .34 - —
Zinc cyanide, dms., 1,000-lb. lots or more, works lb. .53 - —
dms., smaller lots, works .... lb. .57 - —
Zinc dust, comt., bbls., c.l., works, lb. .17 - —
Pigment, bbls., c.l., works .... lb. .16½ - —
bbls., l.c.l., works .... lb. .18¼ - —
Zinc fluoride, bbls., works .... lb. .49 - .50
Zinc hydrosulfite, dms., c.l., frt. alld lb. .21½ - —
dms., l.c.l., frt. alld. .... lb. .23½ - —
Zinc metal, prime western, slabs, E. St. Louis lb. .12¼ - —
Prime western, slabs, New York, lb. .13 - —
Zinc naphthenate, liq., 8% Zn., dms., frt. alld lb. .27 - —
10% Zn., dms., frt. alld .... lb. .33 - —
Zinc nitrate, tech., cryst., bbls., works lb. .20 - —
Zinc oxide pigment, American process, lead-free, bgs., c.l., frt. alld lb. .14½ - —
bgs., l.c.l. 10 tons or more, same basis lb. .15 - —
lead-free, bgs., l.c.l., smaller lots, same basis lb. .15½ - —
leaded, 35% bgs. c.l., mills, frt. alld lb. .15⅜ - —
bgs. l.c.l. 10 tons or more, same basis lb. .15¾ - —
leaded, 50% bgs. c.l., same basis lb. .15¾ - —
bgs., l.c.l., 10 tons or more, same basis lb. .16¼ - —
bgs. l.c.l. smaller lots, same basis lb. .16⅜ - —
French process, green seal, bgs., c.l., mills, frt. alld lb. .16¼ - —
bgs., l.c.l. 10 tons or more, same basis lb. .16¾ - —
bgs. l.c.l. smaller lots, same basis lb. .17¼ - —
red seal, bgs., c.l., same basis, lb, .15¾ - —
bgs., l.c.l. 10 tons or more, same basis lb. .16¼ - —
red seal, bgs., l.c.l., smaller lots, same basis lb. .16¾ - —
white seal, bgs., c.l., same basis lb. .16¾ - —
bgs., l.c.l. 10 tons or more, same basis lb. .17¼ - —
bgs., l.c.l., smaller lots, same basis lb. .17¾ - —
Zinc oxide, USP, dms., c.l. frt. alld. lb. .18¼ - —
dms., l.c.l., 10 tons or more, same basis lb. .18¾ - —
dms., l.c.l., smaller lots, same basis lb. .19¼ - —
Zinc phenolsulfonate, NF, gran., dms lb. .45 - .46
NF, powd., dms .... lb. .48 - .49
Zinc resinate, precip., 7.2-7.6% Zn., dms., frt. alld. lb. .40¼ - —
Zinc silicofluoride, dms., works lb. .12½ - .14
Zinc stearate, tech., USP, ctns., c.l., lb. .41 - —
ctns., l.c.l. .... lb. .42 - .46
Zinc sulfate, powd., monohydrate, 36% Zn., bgs., c.l., dlvd. E 100 lbs. 8.75 - —
bgs., l.c.l., dlvd. E 100 lbs. 9.75 - —
USP, gran., dms. .... lb. .26 - —
Zinc sulfate in bbls. 40c. higher.
Zinc sulfide pure, bgs. c.l., dlvd lb. .2330 - —
Zinc undecylenate, dms .... lb. 2.00 - —
Zinc yellow (see Zinc chromate).
Zinc-ammonium chloride, ogs., c.l., works 100 lbs 10.25 - —
bbls, c.l., works .... 100 lbs. 10.85 - —
bbls., l.c.l., works .... 100 lbs. 11.35 - —
Zinc-formaldehyde sulfoxylate, basic, 300-lb. dms., frt. alld lb. .26 - —
Normal, 250-lb. dms., frt. alld lb. .52 - —
Zircon (G), gran., bgs., c.l., works, lb. .03¼ - —
bgs., 5 tons to c.l., works lb. .03⅜ - —
bgs., 1 ton to 9,999-lb. lots, works, lb. .04 - —
bgs., smaller lots, works .... lb. .06½ - —
Zircon (G), milled, bgs., c.l., works, lb. .04⅛ - —
bgs., 5 tons to c.l., works . lb. .04⅜ - —
bgs., 1 ton to 9,999-lb. lots, works lb. .04⅝ - —
bgs. 500-1,999-lb lots, works lb. .07½ - —
Zircon (G) in barrels 1c. higher.
Zirconium acetate soln., 13% ZrO_2, dms., c.l., 30,000 lbs. min., works lb. .23 - —
Zirconium hydride, powd. electronic grade dms., works lb. 14.00 -15.00
Zirconium oxide, CP, white, grd., bbls. or bgs., works lb. 1.50 - —
Electric-fused, lump, bgs., 500 to 1,999-lb. lots, works lb. .48½ - —
bgs., smaller lots, works lb. .51 - —
milled, bgs., c.l., works .... lb. .62 - —
bgs., 5-ton lots, works .... lb. .62½ - —
bgs., 1-ton to 9,999-lb. lots, works lb. .63½ - —
bgs., 500 to 1,999-lb. lots, works lb. .64 - —
bgs., smaller lots, works lb. .66 - —
Glass polishing grade, 94-97% ZrO_2, bgs., works .... lb. .53 - .63
Opacifier grade, 85-90% ZrO_2, bgs., lb. .27 - .59
Stabilized oxide, 91% ZrO_2, milled, bgs lb. .62 - .83
Zirconium oxychioride, cryst., ctns., 5-ton lots, works .... lb. .37½ - —

AZO

For High Consistency in Paints
AZO ZZZ-22

For Medium Consistency in Paints
AZO ZZZ-11



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Bromine Use in 1965 to Pass 200 Million Pounds If Ethylene Dibromide Hangs On

OPD Special Report on Elemental Bromine

—*Continued from page 3*

1956 showed a combined increase in business of 14 percent, and the years 1957 and 1958 decreased the exact same amount.

"These figures cover both the United States and Canada, and on this basis the total tetraethyl lead business from the plant in these two countries was almost identical in 1958 to what it was in 1954.

"This," Mr. Costello concludes, "is certainly disappointing in light of the substantial growth that the industry experienced from the end of the war up to 1954."

Consumption Slipped Again

And in 1959, despite the recovery from the '58 recession, despite the increase in automobiles, miles traveled, gasoline consumption, all indications are that TEL—and ethylene dibromide—consumption slipped again.

What has been happening? Mr. Costello furnished some of the answers in his speech early last year:

- Lead concentrations went down appreciably during 1957 and 1958, and this factor accounted for a 14 percent loss in total business.

In 1956, TEL content per gallon of regular grade motor gasoline was 2.2 milliliters per gallon. In December, 1958, it was 1.5 ml.—or about 18 million pounds of TEL less than at the higher concentration.

- Chief reason for the decline in TEL concentration lies with the refining industry, specifically with catalytic reforming. This process takes gasoline of low antiknock quality, catalytically treats it and turns out high octane gasoline and petrochemical feedstocks.

The first reformers were installed in 1954, and by 1958, reforming capacity had jumped to 2.8 million barrels a day. Based on crude capacity, this accounts for about 20 percent.

Results of Reforming

The effect of this process is that the base octane of the gasoline is increased before it comes in contact with TEL. Its influence is so great that if catalytic reformers did not exist and all of the octane quality was imparted by TEL, consumption of lead by TEL producers would jump 90,000 tons.

Some other factors in the current doldrums:

- Increase in gasoline quality required by engines of newer cars in the past few years has not been as great as in previous years.
- The petroleum industry is burdened with the very high cost per octane number at the higher levels that have now been reached.
- Demand for aviation gasoline has declined appreciably, and could conceivably vanish over the next few years owing to the increasing use of jet engines.
- The small car buying surge by the public accounts for the demand for lower octane gasolines—and lower consumption of gasoline itself.

And what about the future of TEL? Ethyl Corporation and E. I. duPont de Nemours & Co., the two producers, see demand increasing to as high as 754 million pounds (Ethyl's estimate) in 1963, or, more conservatively, to 532 million pounds (duPont's estimate) in that year.

This attractive-looking future assumes the following:

1. That the antiknock ingredient will continue to be TEL, and that it will benefit from higher allowable concentrations, and that "Texas Lead Appreciator," developed by Texaco, Inc., among other new additives, will help to increase, rather than decrease TEL consumption.

2. That the gas turbine engine will not suddenly sweep in from nowhere and push piston engines aside.

All in all, Ethyl Corporation is optimistic about the future. Mr. Costello has predicted a 5 percent per annum growth, depending on how soon the principal effects or reforming capacity have been offset by normal increases in consumption.

Ethylene dibromide, then, has taken a few hard knocks in the last few years—chiefly because of the rocky road followed by TEL. But not to be discounted is loss of several hundred thousand pounds a year of fumigant business.

EDB was doing all right in this field when the government set up tolerances for EDB for fumigation of a number of crops which pretty well removed it from all but restricted use.

Therefore, unless some startling new use can be developed for EDB, its future—and that of elemental bromine—seems to hang largely on its unique penchant for scavenging lead out of the combustion products of gasoline engines.

Next largest single use of bromine would appear to be in manufacture of methyl bromide. This material has proven a perfectly acceptable soil and grain fumigant, and has worked particularly well in connection with the tobacco industry, where seedbed fumigation is widely practiced.

Production of methyl bromide is expected to expand continually during the next several years. American producers will be running into competition from abroad on this one, however, particularly from Dead Sea Bromine Company, at Sodom, Israel.

This producer has been rising fast since the war, and capacity at the end of this year could reach an estimated 8 million pounds of elemental bromine annually.

The company is reported capable of shipping methyl bromide to South Africa in large quantities for tobacco fumigation there. Further, it is believed that Dead Sea brines contain the highest concentration of bromine extant.

In Brazil, methyl bromide is used extensively in control of the sauba ant, which, if left unchecked, can play hob with the coffee trees.

A bright spot in the bromine end-use pattern, speaking of fumigants, is 1,2-dibromo-3-chloropropane. This material, offered by Dow Chemical Company, but marketed chiefly by Shell Chemical Corporation under the name of "Nemagon" is a fast-grower which has gained wide acceptance.

'Nemagon' and Bromine Use

A key advantage is said to be lower toxicity than that encountered with methyl bromide. "Nemagon" is believed unofficially to have consumed about 1.4 million pounds of elemental bromine in 1959. This figure could more than double by 1965.

Bromine consumed as such, as reported by the Bureau of Mines, is difficult to trace. A safe bet is that continually increasing amounts are going into swimming pool sanitation.

Actual market last year is pegged by some producers at around 300,000 pounds. The potential is fabulous, considering the increasing number of swimming pools being constructed all over the country, both public and private.

Right now chlorine has the market pretty well to itself. It is specified by law in some areas, for one thing. For another, the private pool owner can toss a few tablets containing a hypochlorite into his pool each day in order to keep the water sanitary.

But exponents of elemental bromine in swimming pools point out that their halogen has it all over chlorine. A Michigan Chemical Corporation brochure points out the following:

Bromine is non-irritating to mucous membranes and the treated water is odor- and taste-free; it kills bacillus coli more effectively than chlorine, sodium hypochlorite, chloride of lime or iodine.

Further, bromine, a liquid, requires no pressure equipment, and brominators cost as little as $100, considerably less than chlorine feeders; while it costs more per pound than chlorine, it stays in solution longer, less is used and savings result.

Also, bromine, being less affected by aeration and hydrolysis than chlorine, can be more uniformly maintained in all parts of a pool; and it is fed into the system merely by turning a valve.

Other advantages: Maintenance is no problem; it is safer to handle; it is compatible with other water treatment chemicals; it is more easily storable and takes up less storage space.

Convinced bromine is the coming thing in swimming pool sanitation, the industry is going all out to bring bromine to the private swimming pool owner in tablet form, and in combination with quaternary compounds which combat algae and slime formation.

From the swimmer's point of view, it stacks up this way: The Illinois Department of Public Health reports that complaints of skin and eye irritation dropped from 64 percent to 18 percent when bromine replaced other materials for swimming pool water treatment. Further, bromine imparts a pleasing blue color to the water.

Inorganic bromides, used for a wide variety of purposes, including medicinals and photographic chemicals, are expected to hold their own over the next five years in terms of consumption of elemental bromine.

Organic bromides, including dyestuffs, medicinals and bromocarbons also have good growth possibilities. This is largely due to stepped-up research efforts in the organic field in recent years.

Role of Bromocarbons

Bromocarbons, such as chlorobromomethane (CB), still find good call as fire extinguishants. The Air Force reportedly takes "several hundred thousand pounds" a year for fire extinguishing equipment.

However, the brominated extinguishants have some drawbacks, chiefly cost, and secondarily weight considerations (in airplane use). A good bet for growth right now is dibromodifluoromethane.

The bromofluoro compound is reported less corrosive and toxic than CB, and is recommended for nitric acid-supported fires—a handy thing to have around a missile base.

Evidence is mounting that bromine producers without exception are probing deeper into the organic bromides field. There are at least 325 bromine compounds

—*Continued on page 35*

THE PATTERN OF BROMINE CONSUMPTION

Ethylene Dibromide to Continue as the Leading End-Use

Use	1965	1960	1959	1958
	(Millions of Pounds)			
Ethylene Dibromide	154.0	135.0	135.0	142.0
Bromine (Elemental)	19.0	16.0	15.3	14.4
Methyl Bromide	11.4	9.6	9.0	8.6
Inorganic Bromides	6.5	5.5	5.0	4.7
1,2-Dibromo-3-Chloropropane	3.0	2.2	1.4	1.2
Dyestuffs and Medicinals	3.9	3.3	2.8	2.5
Bromocarbons (CB, etc.)	0.8	0.7	0.5	0.5
Miscellaneous	4.4	3.7	2.0	2.5
Total	203.0	176.0	171.0	176.4

This Bromine Study Is Being Reprinted

OPD's special "in-depth" report on bromine is being reprinted and will be available shortly. These fifteen previous studies are also still in print:

"EHC FIGHTS MANY FOES: Market Woes, Weevils Conspire."
"METHYLAMINES MARKET POSERS: DuPont's Moves Hold the Answers."
"PHTHALIC ANHYDRIDE'S STORY: Naphthalene Holds the Key to Growth."
"SODIUM SULFATE OUTLOOK: Will Output Jump Another 200,000 Tons?"
"OPTICAL BRIGHTENERS: Why There May Be Gold in Paper."
"ACETONE'S OUTPUT RISE: Calm Surface, Troubled Depths."
"MALEIC ANHYDRIDE EXPANSION: Is Industry Capacity Going Amok?"
"LYSINE MONOHYDROCHLORIDE: Sales to Multiply 25 Times in Three Years."
"DDT MARKET'S BIG POSER: Does Mexican Output Spell Trouble?"
"ULTRAVIOLET ABSORBERS: Lighting the Way to $10 Million Market."
"DOP, DIOP VOLUME RISES: But the Profit Squeeze Continues."
"BUTADIENE CONVALESCES: Industry Recovers from Poor '58."
"STYRENE MONOMER'S STORY: The Industry's Three Big Questions."
"CHELATING AGENTS: A Phenomenon Has Growing Pains."
"TITANIUM PIGMENT: Why Producers Scoff at Recession."

Reprints of the sixteen articles may be obtained at 25 cents a copy (discounts on quantities of a hundred) from OIL, PAINT AND DRUG REPORTER'S Reprint Department, 30 Church Street, New York 7.

Heavy Chemicals

Eddies of readjustment psychology, most notable in steel, have not touched paper or glass. Profiting by the sustained production strength of these basic industries are alum and soda ash, respectively. Even steel's rapid decline from post-strike boom levels has failed to touch all suppliers. Lime makers, particularly, continue to operate at a brisk rate, right at capacity in some steel areas. Hydrochloric and sulfuric acids, on the other hand, have felt it a little bit, and unless the steel production trend reverses, the hurt will be more than superficial, observers say. A turndown in aluminum smelting operations has bitten a small corner out of HF sales.

Mercury prices again last week advanced in the teeth of lagging interest, up $1 a flask on large lots. While consumers showed little if any inclination to buy, dealers were equally chary about offers, noting that supply had tightened another notch and that prospects of a loosening through increased imports were not strong.

Caustic soda price listings have taken on a healthier look from chlorine's second quarter advance, but this, say trade sources, is more the erasure of a former pallor than the threat of a comparable boost. With the great bulk of business restricted to contract, an advance during the present quarter is already ruled out, and one during the time of summer doldrums is not likely.

In addition to chlorine, the materials starting the quarter with longer prices are ammonium silicofluoride, calcium chloride flakes, sulfur dichloride and sulfur monochloride. Details appear in the price box and the text below. Also deserving of another mention is a March 22 advance in sodium antimoniate, which coincided with the antimony oxide boost reported in the paint market.

The American Paper and Pulp Association reported production for the week ended March 26, at 99.9 percent of theoretical capacity as compared with the revised figure of 98.1 percent for the previous week and 92.9 percent for the corresponding week of last year.

Price Trends

Advanced

Ammonium silicofluoride, ½c. per lb.
Chlorine, liq., bulk, $2 per ton
Calcium chloride, flk., reg., $1 per ton
High-test, $1.50 per ton
Mercury, $1 per flk.
Sulfur dichloride, ¼c. to 1c. per lb.
Sulfur monochloride, ¼c. to 1c. per lb.

Reduced

None

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	April 3, 1959
106.88	106.84	106.79	104.84

For Current Prices see Page 10

Acids

Hydrochloric—The turndown in steel has been felt here, but not deeply, as Pittsburgh is only a small part of hydrochloric's market. Chlorinated solvent demand, a more important factor, is holding up well, sources close to the trade report.

Hydrofluoric—Call from the fluorine chemical trade is described as good for this time of the year. Aluminum smelting operations have turned down, which has been reflected in the HF sales picture, but the light metal people are optimistic about the balance of the year.

Nitric—Fertilizer making is about over until early fall, but industrial outlets have taken up most of the slack, people in the nitric acid trade report. Producers' stocks, they say, are at levels normal for the season.

Sulfuric—Production of byproduct sulfuric acid at copper and zinc plants last year totaled 1,086,000 short tons, down sharply from 1,234,000 tons in 1958, according to a report of the Bureau of Mines. This was the lowest total reported since 1954.

The upward trend of acid output at copper plants, which began in 1949, was reversed last year due to the strikes that began in mid-August; production fell 43 percent. Acid output at zinc plant rose nine percent, which was far from adequate to offset the decline at copper plants.

American Iron & Steel Institute estimates that steel output fell to 2,527,000 net tons, or 88.7 percent of capacity, last week as compared with the previous week's actual total of 2,597,000 tons, or 91.1 percent of capacity.

A month ago, the Institute recalls, output totaled 2,645,000 tons; a year ago, it stood at 2,638,000 tons.

Bases and Salts

Alum—Unabated production strength in the paper industry gives this material a strong tone at a time when early doldrums have caught up with not a few heavy chemicals. Prices are reported steady at list levels, except for the isolated competitive situation previously reported here.

Ammonium Silicofluoride—With start of the quarter, prices were marked up ½c. a pound to newly quoted levels of 12¼c. for large lots and 13¾c. for smaller quantities.

Caustic Soda—Price listings took on a healthier look from chlorine's advance, but this was more the erasure of a former pallor than the threat of a comparable advance, trade sources say. With the great bulk of business restricted to contract, an advance during this quarter is already ruled out, and one during the time of summer doldrums is not a strong possibility, these sources add.

Current business volume gives little cause for complaint, the trade says, but lacks any spectacular accent that might call forth a cheer. Supply is plentiful, all trade reports indicate.

Chlorine—The price boost that went into effect April 1 amounted to $2 a ton on bulk material. Smaller-than-bulk shipments were raised accordingly. For the new schedule, see OPD's price pages.

Soda Ash—Current eddies of readjustment psycho'ogy, notable in steel and automobiles, have not touched the glass industry, which is busily preparing for the booming soda pop and beer days lying around the calendar's next quarter. The trade reports that soda ash is moving in excellent volume to Pittsburg's glass industry. Sheet glass, too, it is added, continues as an active outlet, both for replacement sales and new construction.

Lime—Sales continued at a spectacular pace in January, totaling 973,659 short tons as against only 702,583 in the comparable month of 1959, according to the Mines Bureau. But the total was somewhat lower than in December, when resumption of steel operations sent lime sales to an all time record level of 1,001,314 tons.

By types, the January figure included 777,189 tons of quicklime and 196,470 tons of hydrated. By outlets, the breakdown is 6,368 tons to agriculture, 67,907 tons to construction, 670,444 to chemical and other industrial outlets and 228,940 to refractories.

Sodium Chemicals — The price of sodium antimoniate was advanced, effective March 22, to 29c. a pound in less than truckload quantities, and 27½c. in truckloads. The advance coincided with a boost in antimony oxide prices.

Sulfur Chemicals—As announced some three or four weeks in advance, prices of sulfur chloride and dichloride were boosted with the start of the second quarter. New schedules for both materials read 4½c. in tankcars, an advance of ¼c.; 5¼c. in carlots, up ¾c.; and 6¼c. in smaller lots, up 1c. a pound.

Nonferrous Metals

Aluminum—Consumption of open market aluminum-base scrap in November is reported at 34,000 tons by the Mines Bureau. This was a decrease of 6,000 tons from the October level. Receipts of 37,000 tons were only 3,500 tons less than in the previous month, Mines adds.

Consumption of all classes of new scrap dropped, while usage of old scrap dropped about 600 skimmings, Mines reports.

Shipments of deoxidizing ingot during the month were 2,100 tons, showing the first monthly increase since May. Declines from June on were attributed to the steel strike, which was halted by injunction during November.

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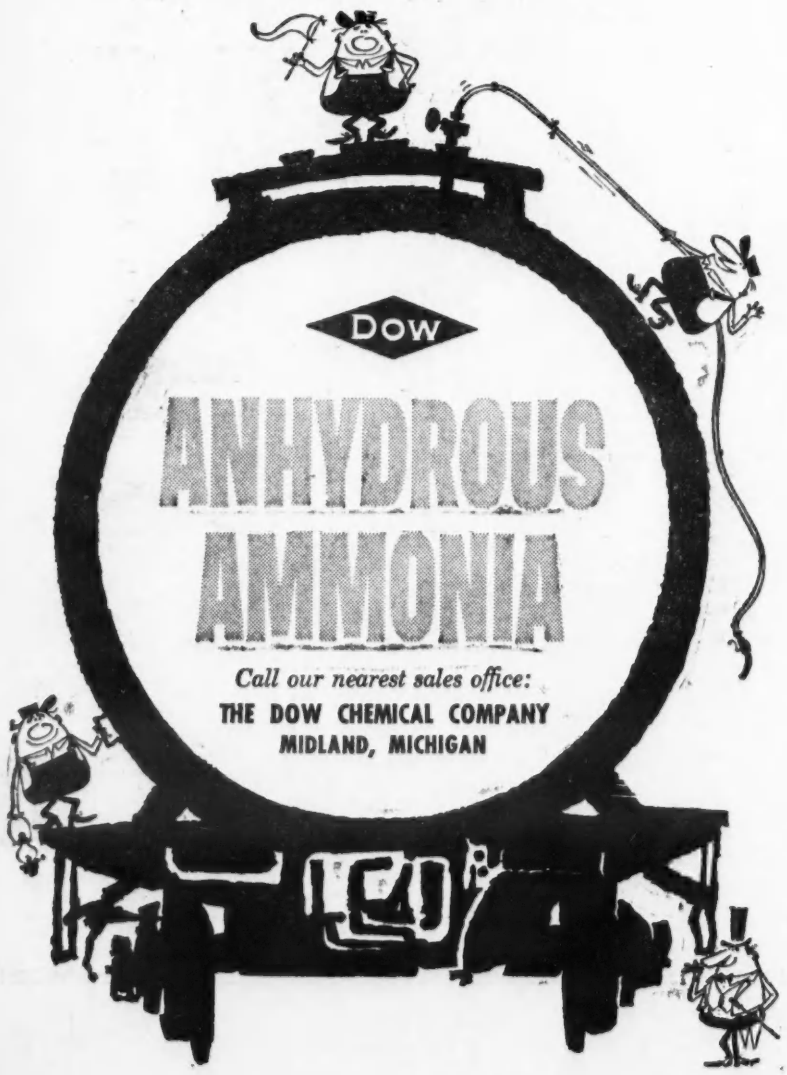

Heavy Chemicals

the January-November period, Mines goes on to note, ranged from 24,000 tons in January to a high of about 31,000 tons during April, May and June and then declined to 24,000 tons in November.

Consumption of purchased aluminum-base scrap by independent smelters in November totaled 28,347 tons. Primary producers used 3,428 tons; and foundries, fabricators and others, 2,148 tons. Calculated metallic recovery totaled 27,098 from new scrap and 5,863 from old.

The Bureau estimates that full coverage of industry would have turned up a total scrap consumption of 40,000 tons and ingot output of 28,000 tons. Metallic recovery based on full coverage would have totaled 33,000 tons, Mines adds.

Lead—Moderate sales took place against unchanged prices and plentiful supply.

Mercury—Price again advanced in the teeth of lagging interest, up $1 a flask on large lots. While consumers showed little if any interest, dealers were equally chary about supplies, which tightened further. Prices were quoted on Friday at $215 to $217 a flask, as to quantity.

Silver—Quotation has been unchanged over a year at 91⅜c. a troy ounce, spot.

Tin—Market recovered after the previous week's easing and prices closed unchanged at $1 a pound, spot.

Montrose Chemical Bags UNICEF DDT Contract

Montrose Chemical Corporation of California, which sold the US government 24 million pounds of DDT last fall (OPD, 11/30/60), has just been awarded a contract for 10 million pounds of the insecticide by the United Nations International Children's Emergency Fund (UNICEF).

Low bidder for UNICEF's business, the Los Angeles-based firm will receive 22½ cents a pound or $2.25 million for the entire quantity of 75 percent wettable powder.

Shipments are scheduled to begin next month and continue to the end of the year.

Zinc Institute's Meeting Will Be Held This Week

The American Zinc Institute will hold its 32nd annual meeting this week, April 6 and 7 at the Chase-Park Plaza hotel in St. Louis, Mo.

Highlighting the first day's session will be papers evaluating current and new uses for lead, reports of association activities, including reports from the secretary-treasurer and director of research, and election of directors.

A joint meeting with the American Zinc Institute will feature the following day's proceedings.

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Bromine Use in 1965

OPD Special Report

—*Continued from page 32*

available to researchers now—and 233 of them are offered as sales items.

Dow Chemical Company, acknowledged kingpin in the bromine business, is pushing research in several directions. Michigan Chemical is keen on its "Firemaster" flameproofing compounds, believing them good bets as additives in plastics and other materials.

Great Lakes Chemical Corporation, moving full steam ahead on alkyl bromide development, is in the midst of putting up or opening new lab, brine well and end-product facilities (OPD, 3/7/60).

Current bromine capacity is reckoned at nearly 197 million pounds Br_2 a year. Admittedly, if demand of 203 million pounds bromine is to be met by 1965, more facilities will have to be installed.

WORLD BROMINE CAPACITIES: '59

Britain . . .	15,800,000 lbs.
France . . .	7,500,000 lbs.
Israel	7,000,000 lbs.
W.Germany	3,500,000 lbs.
Japan	2,500,000 lbs.
S. Africa . .	441,000 lbs.
Italy	70,000 lbs.
India	55,000 lbs.
Total	36,866,000 lbs.

Right now, Michigan Chemical—together with Murphy Corporation, the owner of a bromine unit in El Dorado, Ark.—is in the midst of doubling capacity at El Dorado. This would boost overall potential to 202 million pounds by next summer.

Furthermore, Morton Chemical Company, which makes inorganic bromides directly from bromine at Manistee, Mich., can be counted as a potential producer of elemental bromine, depending on the speed of overall market growth.

Topping this picture off is Dow, which, long entrenched as the leader in bromine, is not going to fall back when expansion time rolls around. Hence, it's more than likely there'll be enough domestic capacity to take care of foreseeable needs by 1965.

World bromine capacity can be expected to grow, largely depending on internal consumption of TEL within given countries, as well as increasing needs for agricultural fumigants.

Britain's bromine capacity today is tied up in two ethylene dibromide-from bromine-from-sea water plants. France has an estimated 7.5-million-pound capacity from sea water and from potash brines.

Iron Curtain Question Mark

An enigma in the world picture is, of course, the Communist bloc. No one outside the iron curtain seems to know how well off the Soviet Union and its cohorts are in terms of bromine production. What's been experienced so far among outsiders, though, doesn't give much cause for future concern.

There is some feeling that bromine exports from this country (bromine and bromine compounds, chiefly ethylene dibromide and methyl bromide) may decline due to rising overseas potential.

The export market has shown good growth over the last six years, rising from 3.4 million pounds of compounds in 1953 to more than 10 million pounds in 1959. Exports have gone chiefly to Canada (for TEL fluid) and to Brazil (for the sauba ant).

But producers here are far more involved in the short-term outcome of ethylene dibromide—and the many factors coming into play which will have effect on its future.

Once this problem is settled, it is felt, bromine consumption will rise at an even, satisfactory rate right on through the next decade, chiefly because there are so many other promising end-uses working in the halogen's favor.

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Zinc Consumption Up In Teeth of Strike: AZI

US consumption of slab zinc in 1959 climbed 7.5 percent over the 1958 level, despite inroads made by the steel strike on zinc's market for galvanizing.

Strong gains were scored in consumption of zinc for brass, die casting, and for French process zinc oxide, reports John L. Kimberley, executive vice-president of the American Zinc Institute.

In "A Review of the Zinc Industry in the US during 1959," just published by the AZI, Mr. Kimberley tallies slab zinc consumption in brass during 1959 at 127,221 tons, up from 101,375 tons in 1958.

Without the influence of the steel strike, consumption of slab zinc would probably have reached more than 1 million tons, second only to the record year of 1955 when annual zinc consumption reached 1,119,812 tons, Mr. Kimberley believes.

Zinc used for French process oxide climbed sharply to 18,309 tons in 1959, a 37 percent increase over '58's 13,331 tons. Slab zinc consumed for zinc-base alloys, principally employed for die caseing, reached 370,330 tons, as against 316,830 tons in 1958, a jump of 17 percent.

Consumption of zinc in rolled zinc products remained about unchanged from 1958, according to Mr. Kimberley's report. The figure for '59 was 40,579 tons. Galvanizing consumed 346,648 tons of slab zinc, a 9 percent drop from 381,229 tons in 1958.

Turning to 1960 prospects, Mr. Kimberley sees an excellent outlook for both galvanizing and zinc die casting. He cites strong galvanized sheet demands for roofing and siding, as well as the vigorous start by automobile manufacturers in the use of galvanized sheet for unitzed body construction.

In the area of die casting, the AZI executive notes that zinc's position has been strengthened materially in the automotive market as a result of dramatically upgraded electroplating technique relative to zinc components. He points to the resuming of a trend among major car makers to die cast zinc radiator grilles, dashboard panels, as well as other zinc automotive parts.

AZI's newly-published review is available from the Institute at 60 East 42nd street, New York 17.

MCA Makes Clark Chief Of Nominating Committee

Ralph A. Clark has been named chairman of the nominating committee of the Drug, Chemical & Allied Trades Association. Mr. Clark is vice-president of J. T. Baker Chemical Company.

Others on the committee are James Day, Dow Chemical Company; J. David Hayden, American Home Products Corporation; W. Boyd O'Connor, Ayerst Laboratories; and William J. Schieffelin, 3rd, Schieffelin & Co.

The slate of officers nominated by this group will be voted on at DCAT's 70th annual meeting, to be held September 15-18 at the Sagamore hotel in Bolton Landing, N. Y.

Velsicol Corporation Names Lorant, Chadwick to VP Roles

Bernard H. Lorant and A. B. Chadwick have been appointed vice-presidents of Velsicol Chemical Corporation, Chicago.

Formerly assistant to the president in charge of research, Mr. Lorant has been named vice-president in charge of research and a director. Mr. Chadwick, whose previous post was that of director of manufacturing and engineering, now becomes vice-president in charge of those functions.

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Petroleum Derivatives

The overall market situation in the petroleum derivatives took a dismal turn during March after a fairly good month in February. Cutbacks in steel production, in construction and in other industrial activities have combined to lessen solvent demand. Adding to the decline in production has been the adverse weather that has raised havoc in many areas. The first quarter of the year, it would seem, has not lived up to glowing predictions made for it.

The aromatic solvents continue to exhibit the wide division in their supply positions. Toluene and xylene are reported unchanged in their plentiful stocks, and with the reduction in solvent demand induced by the cutbacks in industrial activity, the possibility of further accumulations in those stocks is a factor that might plague producers over the next quarter. Benzene is still reported to be hard to come by. Prices there as in all the aromatics are unchanged.

There are reports that the European chemical manufacturers have tried to obtain industrial benzene from Russian refineries. This action is said to have been the result of the Europeans failure to obtain benzene on the market here. The reported price of 42 cents a gallon is said to have been too steep for the potential foreign buyers. In regard to the Russian benzene, it has been said that more of the red benzene will be arriving in this country with the opening of the St. Lawrence Seaway. A total of 90,000 tons, on a two year contract remains outstanding. To date about 31,000 metric tons have arrived this year in the Gulf area.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	April 4, 1959
104.34	104.34	103.64	104.42

For Current Prices see Page 10

Aromatic Solvents

Benzene—There has been no reported change in the tight supply position of this aromatic solvent. This condition has been pointed up by the continuing flow of import benzene into this country. Prices hold at the same levels as in previous weeks: 34 cents a gallon for material under contract and 40 cents a gallon for material moving on spot, when it is available.

The Tariff Commission reports that production of benzene totaled 329,879,816 gallons for 1959. Of this total, tar distillers supplied 18,497,582 gallons, coke-oven operators accounted for 119,850,613 gallons, while the petroleum processors provided 191,531,621 gallons.

The production figures for January are also included in the report by the Tariff Commission. They show that petroleum sources accounted for 18,966,901 gallons of benzene for the first month of the year. Coke-oven operators produced 15,325,576 gallons, while tar distillers provided 1,224,174 gallons. Total production of benzene amounted to 35,516,651 for January, 1960.

Toluene—The total production of toluene from all sources for 1959 came to 243,055,768 gallons, according to reports received from the Tariff Commission. Included in this amount is the 3,669,661 gallons supplied by the tar distillers and the 212,616,778 gallons provided by the petroleum processors. Coke-oven operators produced an additional 26,769,329 gallons.

Production for the month of January of this year came to 22,113,348 gallons. The three sources of toluene, tar distillers, coke-oven operators and petroleum processors supplied 232,395 gallons, 2,971,716 gallons and 18,909,237 gallons, respectively. Figures are supplied by the Tariff Commission.

Xylene—During the month of January of this year petroleum processors and tar distillers combined production amounted to 18,570,253 gallons. Toluene produced from the coke-oven sources contributed an additional 739,992 gallons. Preliminary reports from the Tariff Commission indicate that the total production of toluene was 244,188,706 gallons in 1959. Of this amount tar distillers and the petroleum processors accounted for 236,643,046, gallons. The remaining 7,545,660 gallons was supplied by the coke-oven operators.

Crude Oil Stocks

Stocks of domestic and foreign crude petroleum at the close of the week ended March 19, totaled 255,866,000 barrels according to data reported by the Bureau of Mines. Compared with the total of 254,234,000 barrels the preceding week, this represents an increase of 1,632,000 barrels comprising an increase of 1,167,000 barrels in stocks of domestic crude and an increase of 465,000 barrels in stock of foreign crude.

Aliphatic Solvents

Cleaner's Naphtha — This normally serene market perked up last week with the announcement that a coin operated dry-cleaning machine had been developed. The automatic machine has been placed in operation on a limited scale in several mid-western cities. Trade sources report that the machines have met with favorable consumer response. For about 75c., a customer can have 9 lbs. of clothing cleaned in a solution of perchlorethylene. The dry-cleaning operation lasts about 40 minutes. Although several obstacles lie in the way of country-wide installation of the machines, manufacturers are optimistic about the potential market for the machine. It is estimated that the coin-operated machines may easily create a new market for dry-cleaning operations among present non-users.

The success of the coin-operated laundry machines leads many cleaners to believe that the dry-cleaning type might eventually catch on. The cost of the machine is expensive: $6,000 per unit. But it is reported that several manufacturers have machines of like capacity scheduled to come out on the market at a much cheaper price.

The machine requires about 1 lb. of solvent for each 10 lbs. of clothing. This roughly is the same as that used in present equipment. Besides boosting perchlorethylene sales, it is anticipated that other solvents and dry-cleaning aids would be substantially increased.

What the possible affect wholesale employment of the machines would have on the estimated $85 million dry-cleaning industry is yet to be determined. One thing is certain, should the machines prove to be popular, major changes in demand patterns for dry-cleaning solvents could easily result.

Hexane—With the exception of an adjustment in the freight rate on the delivered price of hexane, no change has been reported in the price patterns or supply position of hexane. The adjustment in the freight charge is said to be fractional and does not alter the prevailing listing of 20c. a gallon for material in tankcars, New York and New Jersey and 16c. a gallon in Houston, Texas.

Mineral Spirits—The overall situation in the market conditions for mineral spirits is reported to be routine. Some cutbacks in construction and housing have reduced painting activities greatly. As a result demand for both regular and odorless mineral spirits is below its usual spring-time levels. Prices, however, hold at the same levels, unchanged from previous weeks.

Miscellaneous

The A.P.I. estimates that the daily average production of crude oil and lease condensate for the week ended March 18 was 7,116,010 barrels.

Reports received from refining companies indicate that the industry as a whole ran to stills on a Bureau of Mines basis approximately 7,857,000 barrels of crude oil daily and produced 27,712,000 barrels of gasoline; 2,511,000 of kerosene; 12,874,000 of distillate fuel oil and 7,025,000 of residual fuel oil during the week; and had in storage 224,464,000 barrels of finished and unfinished gasoline; 18,784,000 of kerosene; 82,442,000 of distillate fuel oil and 40,991,000 of residual fuel oil on March 18, 1960.

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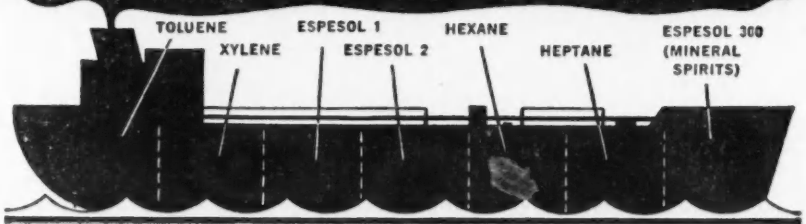

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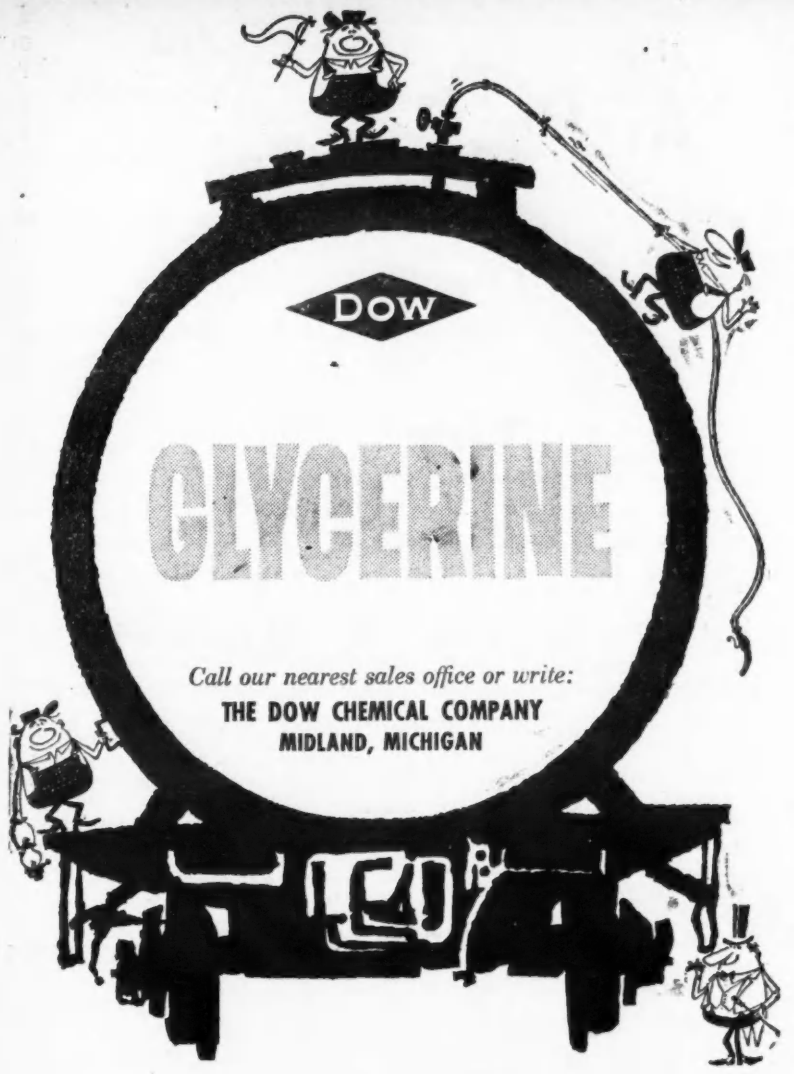

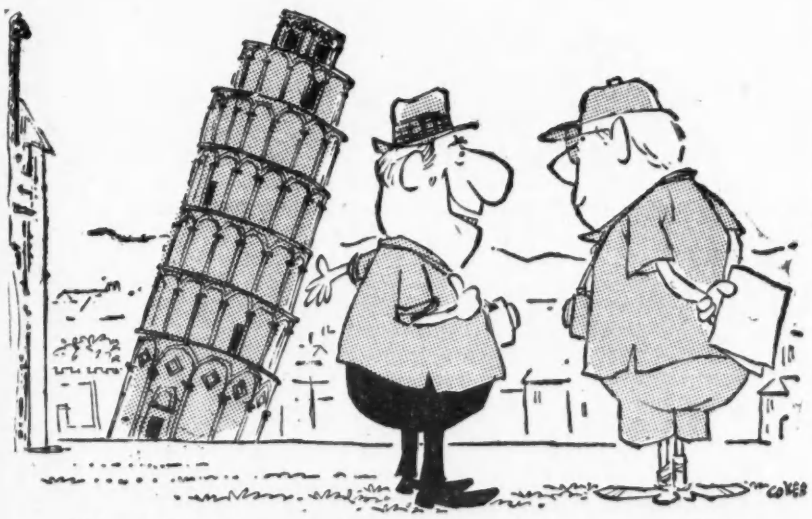

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Aliphatic Organics

A major producer announced a 12 cent per pound across the board reduction on hydroxyethyl cellulose. The reduction sets price on all grades at 84 cents a pound for 20,000-lb. lots or more. Prices are on an f.o.b. works basis. Second quarter price advances in aliphatic chemicals markets were held to a minimum. Although costs have continued to inch upward, chemical makers have had to absorb them. Overcapacity to produce in several large volume markets precludes any upward adjustment at this time, it is reported. The overall market continues to show better tone.

Blackstrap molasses market weakened at New Orleans last week. Price was ¼ cent lower at 8¾ cents per gallon. New York price held unchanged at 13½ cents per gallon. Listing on tert-butyl alcohol advanced 1 cent per pound across the board, effective April 1.

In another second quarter change, trichloroethylene went from a freight equalized to a delivered basis. Material is now 12¾ cents per pound in tankcars delivered in the continental United States, excepting Alaska and Hawaii.

Strong demand for polyesters has been of benefit to makers of ethylene glycol. In addition, explosives demand should see an upturn as spring road building programs get underway.

Sources report an improvement in synthetic resin chemicals for last month and anticipate that the upturn will continue in April. Sales of these materials in the first two months of the year failed to come up to expectations, if for no other reason than that trade sources were setting their sights a little too high. After effects of the strike, inventory adjustments and the normal seasonal slowdown at the beginning of the year were reported as reasons for the blunted demand.

Acrolein — Considerable expansion in capacity to produce this material is in the offing. Sources estimate that a 30-40 million pound plant will make a sizable reduction in price possible.

Material was marketed at $1 per pound in 1946 and was down to 75c. per pound only a few years later. Current tankcar pirce is 46c. per pound and observers envision a price in the 25c. to 30c. per pound range should end-uses develop as expected. Main end-use now is in production of methionine.

Acrylonitrile—Soures report some upturn in demand from the textile outlet. Withdrawals for use in synthetic rubber are steady. Sales of new cars have been disappointing, but, in the tire market, sale of replacement tires has buoyed up the market.

Last price action in this market was a 3.49c. per pound across the board reduction which went into effect January 1 of this year. Tankcar price is 23c. per pound with freight equalized.

tert-Butyl Alchohol—Effective April 1, a 1c. per pound across the board price increase went into effect on this specialty alcohol.

New tankcar price is 13½c. per pound, while carload of drums is 16c. and less carload drum quantities list at 17½c. per pound.

Carbon Tetrachloride—Trade sources indicate trading has been routine. Material continues to move in steady volume to well established trade outlets. Production levels have been well maintained.

Preliminary figures of the Tariff Commission show carbon tetrachloride production during 1959 amounted to 368.5 million pounds.

Ethylene—The market situation reported during recent weeks is essentially unchanged. Localized shortages exist in the Gulf area. New capacity is expected in the market this year. Prices are firmly held at previously established levels.

Ethylene Glycol—Demand for glycol from the polyester outlet has continued strong. An estimated 9 perecent of ethylene glycol production goes to this outlet. A freer supply of phthalic and maleic anhydrides would further strengthen the market, sources feel. Fiber and film production is being maintained at a high level.

Volume of ethylene glycol moving into production of dynamite is expected to show an upturn with warmer weather. A series of heavy snows since the first of the year has slowed road building and thus hobbled explosives demand.

Antifreeze will continue to account for about 80 percent of the market. Producers have been negotiating contracts at last year's prices and building inventories for the heavy fall demand which usually runs from the middle of July through October.

Sources point out that it would be impossible to supply the amount of antifreeze glycol needed during the peak demand season without building sizable inventories.

Last year's antifreeze sales amounted to about 94 million gallons and preliminary estimates by veteran observers indicate sales this year will be pressing 100 million gallons.

January production of ethylene glycol amounted to 114.3 million pounds, a 9 million pound increase over the previous month.

Formaldehyde—Phenolic resin sales exhibited good tone last month, according to most reports. A continuation of the upturn is anticipated in April. Cutbacks in auto production are not expected to cut too deeply into plastics volume, although one source places the amount of plastic used in each automobile at about 25 pounds. Appliance and other durable goods sales have been well maintained and will serve to bolster the market.

Glycerine—Withdrawals to tobacco and cosmetic outlets remains steady. The alkyds market has recovered somewhat,

Price Trends

Advanced

tert-Butyl alcohol, 1c. per lb.

Reduced

Hydroxyethyl cellulose, 12c. per lb.
Molasses, New Orleans, ¼c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	April 3, 1959
132.31	132.34	132.42	130.60

For Current Prices see page 10

Organic Chemicals Output: January

The following figures, in pounds, represent output of specified organic chemicals in December, 1959, and January, 1960, as reported by the Tariff Commission.

	January	December	Total 1959
Acetic Acid:			
Synthetic	37,046,163	60,365,523	686,430,536
Natural (wood distillation)	**	**	**
Acetic anhydride	**	104,528,853	1,094,332,545
Acetone	60,206,765	66,231,870	731,508,368
Acrylonitrile	23,234,710	21,044,419	232,234,225
1,3-Butadiene (rubber grade)	173,561,633	174,475,990	1,831,167,436
Carbon disulfide	45,455,216	47,969,497	513,000,564
Carbon tetrachloride	32,182,878	32,859,584	368,506,095
Ethanolamines (Mono-, di-, and tri)	9,983,327	11,813,769	123,534,614
Ethyl acetate (85 percent)	8,588,434	10,753,896	56,999,250
Ethylene glycol	114,344,093	105,406,264	1,222,677,504
Formaldehyde (37 percent by weight)	121,262,640	140,887,765	1,735,829,819
Methanol:			
Synthetic	155,795,523	165,935,453	1,757,251,631
Natural (wood distillation)	**	**	**
Pentaerythritol	3,710,322	5,200,484	63,664,033
Perchloroethylene	20,705,534	17,510,958	200,480,690
Propylene glycol	13,547,325	14,915,887	151,949,094
Trichloroethylene	30,790,057	30,497,842	332,232,573

** Data not reported.

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Aliphatic Organics

but not to the extent that sources had hoped would be the case. However, March has shown an improvement in consumption of most synthetic resins, over the previous two months.

Crude glycerine is reported trading in the midwest and on the west coast at 18c. per pound. Observers report some sale of crude at 20½c. in the east. Crude glycerine prices have eased since the first of the year.

Hydroxyethyl Cellulose—A major producer announced a 12c. per pound across the board reduction in the price of hydroxy ethyl cellulose.

Under new schedules, all grades of hydroxyethyl cellulose in 20,000-lb. lots or more is priced at 84c. per pound; 2,000 to 19,999-lb. lots, 89c; 100 to 1,999 pound lots, 93c, and smaller quantities, $1.03 per pound. Prices are on an f.o.b. works basis.

Methanol—Expansions in capacity, now in the works, assure producers of ample stocks for formaldehyde and other chemicals production. Antifreeze use has continued to go downhill as a result of widespread use of ethylene glycol and comprises less than 10 percent of the market.

Molasses—Feeding cane molasses markets weakened in the Gulf and some midwest areas, according to report of the Department of Agriculture. Demand has slowed as warmer weather increased grass supplies in many livestock areas. Distributors were inclined to force the pace as a result of the improved supply position. This was also accounted a factor in the weaker market tone.

"Mostly" price at New Orleans was 8¾c. per gallon, down ¼c. from previous report. Prices were also down ¼c. at midwest feed-mixing centers. Most eastern and west coast markets were unchanged.

Internal Revenue Service reported molasses used in the production of alcohol and beverages during January amounted to 2.4 million gallons as against 1.6 million in the previous month and 3.2 million gallons in the comparable month last year. Use from July 1, 1959, through the end of January, this year, amounted to 11.7 million gallons as against 22.5 million gallons in the comparable '58-'59 period.

Cuban production of 1960-crop blackstrap molasses climbed to 100.7 million gallons by the end of February, according to report of the Cuban Sugar Stablization Institute. This compares with 64.8 million gallons produced in the two month period last year. Blackstrap production averaged 42.5 gallons per short ton of cane produced this season as against 44.5 gallon average during the first two months of 1959.

Morpholine—Bulk of production moves to uses in rubber accelerators, bolier treating compounds and wax emulsions. Largest outlet, comprising about 40 percent, is to rubber accelerators. In boiler treating compounds, the material acts as a corrosion inhibitor.

A producer expects to come on stream will additional capacity at Conroe, Tex., by mid-1960. The company will utilize a new process for production of morpholine at Conroe.

Price remains unchanged at 52¾c. per pound in tanks, 55¼c. in carload and 56¼c. per pound in less carload quantity. Prices are on a delivered basis.

Pentaerythritol — Market demand improved last month and sources look for a continuation of the uptrend during April. Movement to alkyd resins, while slow in coming back, has shown some bright

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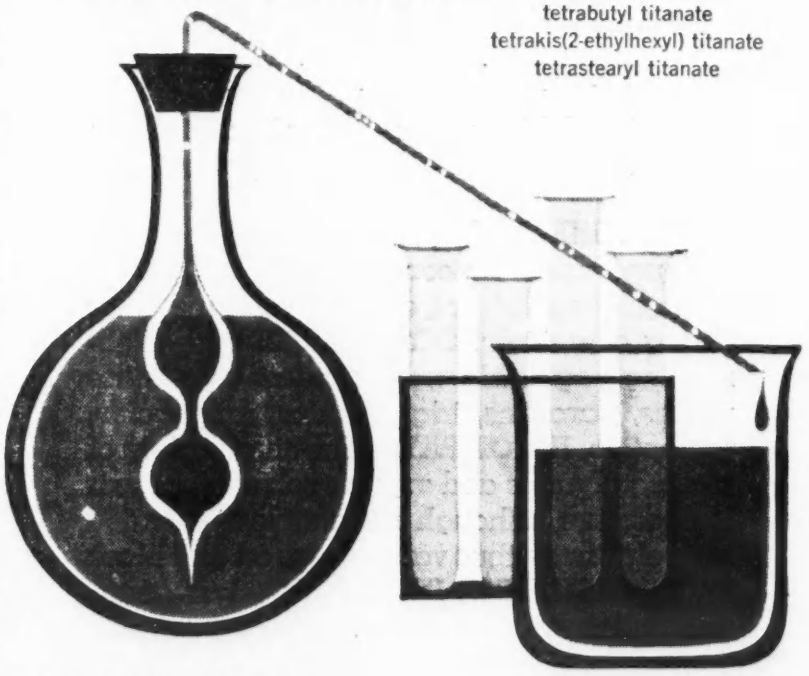

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Aliphatic Organics

spots. Observers feel that cutbacks in auto production will be offset by better appliance and other durable goods sales, as far as synthetic resins volume is concerned.

Trichloroethylene—Producers put this material on a delivered basis, effective April 1. The delivered price is in effect in the continental United States, excepting Alaska and Hawaii.

Under new schedules, trichloroethylene in tankcar lots is 12¾c. per pound, while carload or truckload of drums is 14c. per pound and less than carload quantity lists at 15½c. per pound. A tankwagon of 2,000 gallons minimum is available at 13¼c. per pound.

Previously, trichlor listed at 12c. per pound on a freight equalized basis. Trade observers have felt the change was a move to bring this material more in line with other solvents like methylene chloride and perchlorethylene which are quoted on a delivered basis. The adjustment results in a saving to some consumers.

Delhi Set to Beat

—Continued from page 3

chant potential seven times over by early 1961.

Delhi popped up in Corpus Christi, Tex., last week with the announcement that it has construction under way there for o-xylene, too, and that the facilities will be completed in June—or about a half year ahead of Cosden's.

When Cosden announced its plans they were considered quite impressive, since domestic demand hardly seemed to warrant such an increase. But Cosden had its eye on the big overseas market and did not think it was over-expanding.

Delhi-Taylor reports that it is building a new wrinkle into its plant—a design that will permit other chemicals to be derived from the company's diversified petroleum and petrochemical feed stocks.

Thus, says Delhi-Taylor, the additional facilities now available will allow the company's product and market development departments to put into effect another phase of its product diversification program.

The box-score on production potential is changing rapidly with Delhi-Taylor's announced plans. That company and Cosden are now running neck-and-neck, with Delhi holding an advantage of six months start-up time.

Merchant potential among the other companies is this:

- Suntide Refining Company, 30 million pounds annually at Corpus Christi.
- Humble Oil & Refining Company, 6 to 8 million pounds per year at Baytown, Tex.
- Oronite Chemical Company, 30 million pounds at Richmond, Calif.

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Agricultural Chemicals

Farmers planting intentions, according to a Department of Agriculture survey March 1, indicate that 337 million acres will be under cultivation this year, less than a million acres below the 1959 figure. Feed grain plantings are likely to be down one percent, to 156 million acres, with about the same acreage of corn and sorghums but less oats and barley. Food grain acreage is also expected to show a small reduction, USDA says, because of less spring wheat. Acreage in winter wheat and rice will be about the same, however.

Total wheat plantings are indicated at 57.2 million acres, about one percent below last year. Based on this projection—if per acre yields are up to the 1958-59 average, by States—an all spring wheat crop of 230 million bushels would be produced. Add this figure to the winter wheat crop, estimated at 926 million bushels, and you get an all wheat crop of 1,156 million bushels, compared with 1,128 million in 1959.

Approximately 1.6 million acres will be planted in rice this year, USDA says. While this is slightly above 1959 acreage and the largest since 1955, it is still 14 percent below average.

March intentions indicate that farmers expect to cut hay from about 69.1 million acres, nearly the same as in 1959 but 7 percent below the norm. Hay production this season, at average yields by states, would amount to about 110 million tons or 2 percent less than last year's production.

The pesticide trade won a court battle last week, if only by default. The Supreme Court refused to examine the complaint of thirteen Long Island, New York, residents who had moved to bar aerial spray of DDT over their properties. The case began in 1957 when a combined State-Federal spraying program was launched to eradicate the gypsy moth which was causing serious damage to tree growth on the Island.

Earlier, federal courts had refused to issue an injunction against the spraying or to order payment of damages to the residents on the grounds that no damages had been proven.

Phosphates—In what appears to be a "plan for the future," a US chemical firm, jointly owned by US and British interests, is constructing six crushing and beneficiation units near the phosphate deposits just north of Vernal, Utah.

At first glance, there appear to be many drawbacks to the Utah project. The mine site is not readily accessible, the ore is low-grade, and regional markets are reported poorly developed.

But a closer study of the overall phosphate rock industry in this country reveals some distinct advantages. First, the Utah deposits are considerable—an estimated 700 million tons. Second, the Florida fields, which have been the major domestic source of phosphates for years and years, are beginning to show signs of age. The cream or low cost deposits have already been taken off and now what material remains is going to be increasingly more expensive to ming, it's said.

Furthermore, the Idaho fields, while extensive, contain a hard, dark rock that is considered by some people to be "quite inferior" to the Florida material.

Thus, the time may be ripe for developing the potash deposits in Utah or anywhere else for that matter.

To encourage exploration, President Eisenhower recently signed into law a bill authorizing the Secretary of the Interior to issue permits to prospect for phosphate ores on federally owned lands.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	April 4, 1959
110.72	110.72	110.30	112.61

For Current Prices see Page 10

Pesticides Output

Following are production statistics reported by the Tariff Commission representing the number of pounds of certain pesticides produced during January 1960 and a preliminary total for 1959:

	January 1960	Total 1959
DDT	13,862,544	156,738,413
2,4-D*	3,627,092	29,277,259
Ester & Salts	2,439,143	31,194,077
Acid equivalent	1,817,069	22,334,961
BHC	5,609,125	26,733,190
Gamma isomer	845,337	5,196,863
Tetraethyluram sulfides	—	6,256,881
2,4,5-T	526,715	5,583,140

* Includes 2,4-D acid produced, separated and consumed in plant in the manufacture of its derivatives.
A dash (—) indicates information was not available.

Potash — Come hell or high water, a leading US chemical firm is determined to develop its Esterhazy, Saskatchewan potash site.

Dismissing the skeptics who have voiced doubts about the prospects of developing the province's big potash deposits successfully, the firm has announced what it hopes will be the solution to the problem of water seepage which has halted mine shaft sinking at the 1,200 foot level reached in June, 1958. This is "tubbing," a vertical application of cast iron tunneling commonly used under rivers and lakes. Hitherto untried in North America, the technique has been employed with success in deep mines with water problems in Europe.

To get through the water-bearing (Blairmore) sands at the Esterhazy site, a 300 foot lining weighing 3,000 tons will be used between the 1,200 and 1,500 levels of the shaft. A German firm his been engaged to do the job—contract was effective March 15—for the tidy sum of $750,000.

Coupled with other expenditures, the tubbing cost will bring the firm's investment in Canada to approximately $24 million before an ounce of K_2O is extracted

But the prospects for a highly profitable venture are good indeed. An annual revenue from sales approximating $9 million is likely at the outset, the firm says, and double this figure is anticipated within a few years.

The way it looks now, the firm expects to complete its surface plant this fall and start production early in 1961 at an initial rate of 1,200 tons of potash ore daily. Thereafter, plans call for expansion of existing facilities and the sinking of a second mine shaft.

Markets for its Canadian potash? At first, the firm says, it will concentrate on outlets already developed in the north central and eastern parts of the US. Then it will hit the Canadian market. Finally, it will move potash along the St. Lawrence Seaway to Europe and west to Vancouver and Japan.

Such a nice neat marketing plan—feasible because the Canadian railroads are expected to grant concessions to the new industry — will undoubtedly attract other people in the potash business to Saskatchewan. A nice tax break — new producers pay no taxes for three years—will be an equally powerful incentive.

The Saskatchewan potash reserves are said to be great enough to supply the current demand of the entire North American content for the next 2,000 years. Recoverable reserves are estimated at 4 billion tons although total reserves are considerably more extensive.

Potential output at the Esterhazy site as well as at the Patience Lake mines of a second US firm—the first to make the trek to Canada—is said to be 1,600 tons of high grade potash a day.

Superphosphate — January production of superphosphate and other phosphatic fertilizers amounted to 239,715 short tons (100 percent P_2O_5), compared with January 1959 output of 225,616 tons, the Census bureau reports.

Shipments of superphosphate and other phosphatic fertilizers during the month totaled 163,390 tons, an increase of 6 percent over the volume shipped during the corresponding month last year.

Stocks held at producing plants an January 31, Census says, totaled 377,821 short tons, or 3 percent more than those held thirty days earlier. (Monthly figures, including percentage changes, are unadjusted for seasonal variation and number of working days.)

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COAL CHEMICALS

Coal Chemicals

Confusion reigns among buyers and sellers of phthalic anhydride. A rollback in plasticizer prices is expected to increase resistance to price advances in phthalic anhydride, isophthalic acid and naphthalene. However, as of late in the week, producers who had announced upward adjustments were holding to them. Other increases to go into effect at the beginning of the quarter included b-naphthol and technical grade styrene monomer. No other price changes were reported in coal chemicals markets last week.

The benzene market remains in tight supply. Trade sources say the Russians have become a little more price conscious as a result of the shortage. Material in western Europe is tight and bids of 40 cents per gallon have been made, it is reported. Warmer weather and an opening of the St. Lawrence seaway is expected to bring in more import benzene under long term contracts. However, with benzene bringing good prices in Europe any surplus will probably be absorbed. This could form the basis for a firm domestic benzene market during the balance of the year. A bigger factor is the continued heavy buying of large benzene consumers in this country.

Poor weather has held down wood preserving operations. Producers of creosote and pentachlorophenol anticipate an upturn in the current quarter as railroads step up maintenance programs and other construction moves into second gear.

Tar acids business has been in the doldrums, but observers feel an improvement is in the offing, if for no other reason than that January-March sales were below par. Phenol demand has been well sustained.

With the exception of phthalic anhydride, aromatic intermediates are quiet. Polyester fiber demand is strong, which means more pressure on maleic anhydride producers. An increase in gasoline consumption this quarter is expected to benefit makers of chemical additives. Observers report a nice seasonal increase in sales of p-dichlorobenzene for moth control. Refined naphthalene, also moving to the latter outlet, is in tight supply.

February production of coke amounted to 6,029,620 net tons, according to report of the Bureau of Mines. Coke production in the first two months of the year was one million tons more than the comparable period last year. In spite of an increase in production rate of 2 percent during February demand exceeded output and stocks declined almost 10 percent.

The American Iron and Steel Institute estimated that steel production in the week ended April 3 would amount to 88.7 percent of theoretical capacity equivalent to 2,527,000 net tons of steel. Output of steel was 2,597,000 tons in the previous week, 2,645,000 in the comparable week one month ago and 2,638,000 net tons in the corresponding week one year ago.

Price Trends

Advanced

Isophthalic acid, 2c. per lb.
b-Naphthol, 1c. per lb.
Styrene monomer, tech., 5 100c. per lb.

Reduced

None

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	April 4, 1959
118.40	118.40	118.40	118.55

For Current Prices see Page 10

Basic Products

Benzene—Market is unchanged. Material here and in western Europe is still in tight supply. Sources report the Russians have become a little more price conscious as a result of the shortage. There are reports that some European consumers are hard up enough to pay up to 40c. per gallon for their benzene.

Coaltar—Bureau of Mines reports potential producing capacity of the coke industry in the United States is about 1,040 million gallons of tar, 350 million gallons of light oil and 300 thousand tons of ammonia.

It is estimated that 700 million gallons of tar are processed annually, about 40 percent by cokeoven operators and 60 percent by tar distillers. Only about 16 percent of crude tar is burned as fuel in this country as against about 50 percent before World War II.

Creosote—Poor weather has continued to hold down wood preserving operations. With warmer weather, an upturn in railroad maintenance and other construction work is expected to prove a shot in the arm for the creosote market.

Cresols—Demand is slow. Sources anticipate some upturn in the coming month but admit that first quarter sales were nothing to write home about.

Production of refined p-cresol has been maintained at high levels and sources continue to report they are just able to supply the market. Main outlet is to manufacture of 2,6-di-tert-butyl-p-cresol. The latter, in turn, finds use as an oil additive (technical grade) and in food and feeds (refined grade).

Cresylic Acid—Tar acid markets are in the doldrums. Sources report signs of a pickup this month, but hesitate to say what the extent of recovery will be.

Production has been high. January output was 4.9 million pounds of refined acid as against 4.3 in the comparable month last year. Total production last year was 60.5 million pounds.

Naphthalene—Price will come under pressure as a result of unsettled conditions in phthalic anhydride and phthalate plasticizers markets.

Some producers made a 1c. advance on crude and refined liquid, effective April 1. Tight supply situation is unrelieved.

Phenol—US output last year pressed 700 million pounds of synthetic and natural phenol, according to Tariff Commission figures. January production this year was 65.4 million pounds, a 12.3 million pound boost over the comparable month last year.

A rundown of European production of phenol, according to Bureau of Mines figures, indicates West German output of phenol at 13,000 metric tons in 1958; United Kingdom, 14,000 metric tons; Japan, 7,000 tons; Poland, 8,000 tons and France, 11,000 metric tons (includes cresols and xylenols).

Toluene—The market was quiet. Large volume use in aviation gasoline as well as large export shipments have helped to maintain a fair degree of supply balance.

Demand for toluene for use in protective coatings and as a solvent in the paint industry has been seasonally slow. However, sources expect a marked improvement during the second quarter. Withdrawals for use in chemical synthesis is steady.

Xylene — As with toluene, warmer

Cokeoven Output: February

The following statistics indicate production of selected coal chemicals as reported to the Bureau of Mines by cokeoven plant operators. Benzene statistics do not include motor benzol. All figures are reported in gallons.

	February 1960	January 1960	February 1959
Benzene, nitration	10,897,687	11,515,450	9,180,338
Industrial pure	3,749,464	3,617,554	3,183,298
Industrial 90 and other	464,189	146,833	107,887
Coaltar, crude	71,400,381	74,500,940	66,600,604
Chemical oil, crude	2,250,399	2,586,795	1,909,166
Solvent naphtha, crude and refined	443,924	427,233	341,052
Toluene, nitration	2,425,218	2,456,769	2,181,579
Industrial pure	582,841	485,575	555,060
Xylene, all grades	776,678	736,627	696,757

Coal Chemicals

weather is expected to perk up demand in the protective coatings field. An upswing in construction work in the second quarter will see to that, sources say. An estimated 30 percent of xylene continues to go into aviation gasoline. Good sales of such materials as isophthalic and terephthalic acids, as well as phthalic anhydride, have served to keep demand for xylene isomers well maintained. Demand for o-xylene for export is strong.

Intermediates

2,6-Di-tert-butyl-p-cresol — Producers are moving into an active consuming season with inventories in good shape. Although withdrawals are fairly steady year round, more warm weather driving means an increase in sales volume of oil and gas additives. For feed grade material, too, warmer weather means that farmers will be using more material to stabilize feeds. Oil and gas additive use outweighs food and feed use by roughly four to one.

p-Dichlorobenzene—Sources report a good seasonal increase in volume of crystalline material moving into moth control. Withdrawals of liquid are steady. Opinion is divided as to whether a shortage of refined naphthalene has spurred demand in this market.

Divinylbenzene—Tankcar price on 20 to 25 percent material is 19c. per pound, while carload of drums is 20c. and less carload quantities in drums are 21c. per pound. Prices are on a works basis with freight equalized.

Tankcar listing on 50 to 60 percent material on 100 percent basis, is quoted at 90c. per pound; carload of drums, $1 per pound and less carload drum lots, $1.05 per pound. Prices are on a works basis.

Isophthalic Acid—The market advanced 2c. per pound, effective April 1. Under new schedules, isophthalic acid in carload lots is 18c. per pound, while less carlots are 19c. per pound on a freight equalized basis.

A petrochemical producer expects to be able to ship isophthalic from a new plant by the middle of the year. Pressure on the phthalic anhydride price advance, and, indirectly on isophthalic, has been intensified by a rollback in phthalate plasticizers.

Maleic Anhydride—Polyester demand remains very strong. It is this active demand for maleic for polyester fibers use which has backed the market into a tight supply position in evidence for nearly a year. Producers are filling contract commitments, but see no likelihood that any surplus material will be available this year. Capacity a-building could change the supply situation radically within the next year.

b-Naphthol—A 1c. per pound across the board advance went into effect on April 1. Under new schedules, tankcar price was set at 33c. per pound, while carload or truckload of drums is 34c. per pound and less carload or less truckload is 36c. per pound. Prices are on a works basis.

Phthalic Anhydride—Confusion among buyers and sellers alike continues to feature the market. A rollback in plasticizer prices is expected to increase resistance to price advances in phthalic anhydride, isophthalic acid and naphthalene.

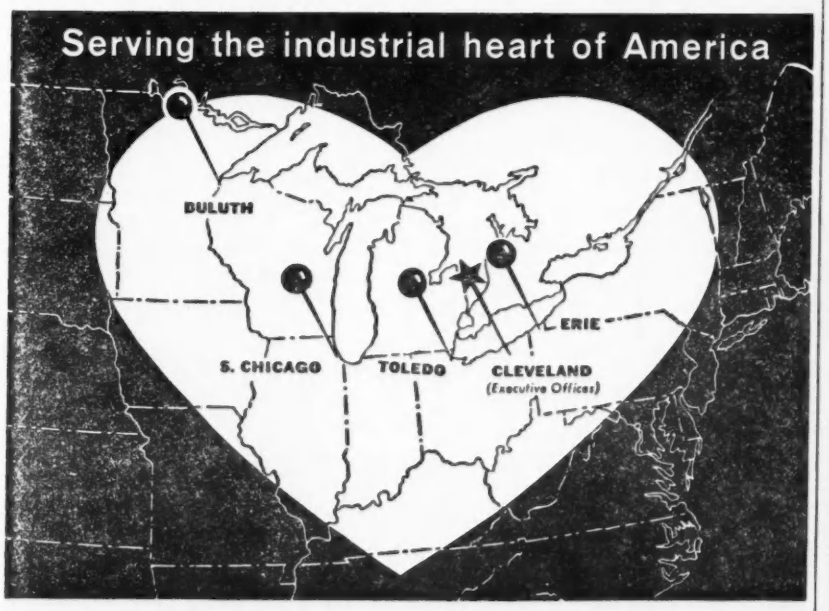
Supply of phthalic anhydride has remained tight overall, although no one has been hurting for some weeks now. Price on flake material in carload of drums ranges from 17c. to 21c. per pound, as to producer. Prices are quoted on a freight equalized basis.

Styrene Monomer—Under escalation contracts, price on technical material was raised 5/100c. per pound across the board, effective April 1. New tankcar quote is 12.22c. per pound, while carload or truckload of drums is 14.72c. per pound and less carload or less truckload is 16.72c. per pound. Polymer grade is unchanged at levels of long standing in the trade.

Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ended April 3, was as follows:

Ammonium liquor	lbs.	799,801
Ammonium sulfate	lbs.	33,636,098
Benzene	gals.	3,243,639
Coaltar	gals.	17,726,934
Crude chemical oils	gals.	518,389
Solvent naphtha	gals.	103,677
Toluene	gals.	725,745
Xylene	gals.	207,355



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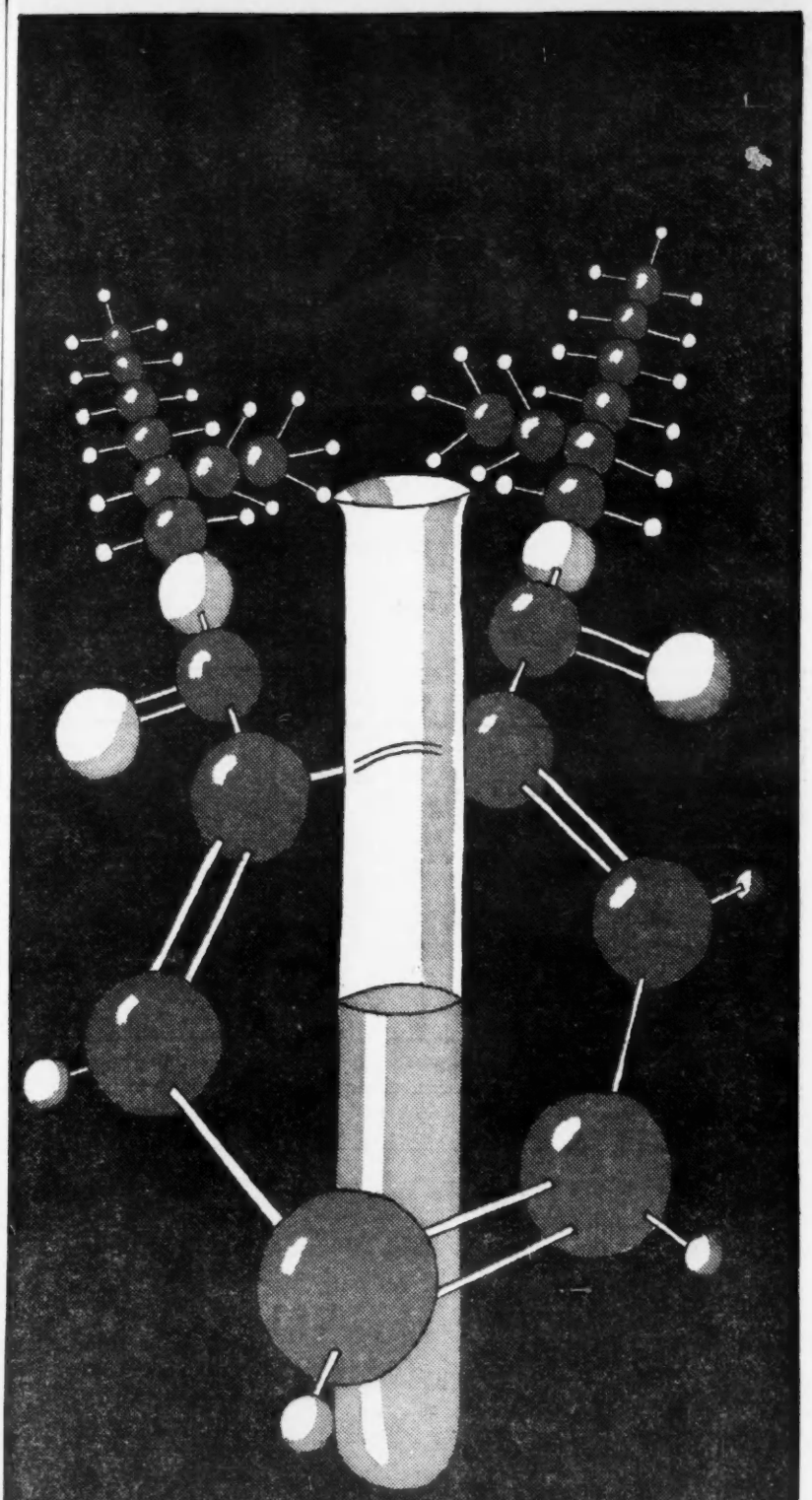

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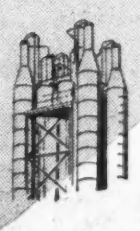

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Jobs & People

American Agricultural Chemical Company, New York—**Walter Bartz** has been moved from Pierce, Fla., to the New York office as special assistant to the controller.

American Potash & Chemical Corporation, Los Angeles—**T. A. Jones** has been advanced from sales representative to manager of the Washington, D. C., office.

Climax Molybdenum Company, New York, a division of American Metal Climax, Inc.—**James R. Lampman, jr.**, has been appointed sales representative for eastern foundry sales.

Colgate-Palmolive Company, New York.—**Dr. George R. Rowley** has been appointed to the biological research laboratories to work in the fields of biochemistry and enzymology.

Dow Chemical Company, Midland, Mich.—**Robert E. Reinker** has been appointed assistant to the operations vice-president of Dow Chemical International, Ltd., S. A.

Food Machinery & Chemical Corporation, New York—**Dr. Leo S. Burnett** has been named technical director of the "Dapon" department in the chemicals and plastics division.

Fritzsche Bros., Inc., New York—**Fred W. Richter** and **Arthur J. Hemminger** were recently honored at a luncheon celebrating their twenty-fifth anniversary with the company.

Hooker Chemical Corporation, Niagara Falls, N.Y.—**John J. Lenahan 2nd** has been named product supervisor of inorganic chemicals in the sales department of the eastern chemical division.

Industrial Minerals & Chemical Company, Berkeley, Calif.—**W. Forrest Rhoton** has been named general manager succeeding **Louis R. Moretti**, who has retired.

Jefferson Chemical Company, Inc., Houston, Tex.—**Walter P. Krause** has been named supervisor of the plant and sales technical service section of the company's Austin Laboratories.

Eli Lilly & Co., Indianapolis, Ind. —**Dr. Cornelius W. Pettinga** has been advanced to the newly-created position of assistant to the vice-president in charge of research, development and control.

Metal Hydrides, Inc., Beverly, Mass.—**Dr. John A. Snover** has been named to the research and development laboratory staff, and **V. Anthony Cammarota** has been appointed to the metallurgical group of the research and development laboratories.

Monsanto Chemical Company, St. Louis, Mo.—**Franklin J. Cornwell** has been named assistant to the vice-president of marketing. In the company's overseas division, **Salvadore P. Lio** has been named director of development. **William M. Russell** has been advanced to the post of European director of Monsanto Overseas, S.A.

Parke, Davis & Co., Ann Arbor, Mich. — **Mrs. Lorraine Scheinman** has been named assistant research chemist.

Philadelphia Quartz Company, Philadelphia—**Monroe J. Blanchard** has been named a director and vice-president in charge of manufacturing.

A. E. Staley Manufacturing Company, Decatur, Ill.—**Earl H. Schrader** has been named manager of the Kansas City, Mo., industrial products sales office.

Ungerer & Co., New York—In recognition of twenty-five years of service with the company, **Ivon H. Budd** and **William H. Dunney, jr.**, were recently given a joint testimonial luncheon and presented with engraved gold wrist watches. Mr. Budd is a director and first vice-president. Mr. Dunney, active as a perfumer for more than thirty-five years, is now director of Perfume Laboratories and vice-president of the parent firm.

Union Carbide Plastics Company, New York, a division of Union Carbide Corporation—**R. W. Sherman** has been named office manager of the New England Regional office. **Herbert R. Clark** has been advanced from technical representative in Philadelphia to technical service specialist for the technical service department in Bound Brook, N. J. **Richard G. Hess** has moved to Rochester, N. Y., where he will handle resin sales for the upper New York State territory. **Howard L. McCurdy** has been appointed a technical sales representative in the south Atlantic regional office at Moorestown, N. J.

Vitro Chemical Company, New York, a division of Vitro Corporation of America—**Paul V. Ames** has been appointed eastern sales representative.

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Trade Name Chemicals & Specialties

Surface active agents have followed a growth pattern which has snowballed to enormous proportions. The sales of synthetic detergents now eclipse by far the old time supremacy of soap. Synthetics are divided into two categories—solids and liquids, with solids to date representing the larger portion of sales. Liquids, however, are definitely on the rise and will most likely continue to do so. Largest single surfactant in volume in the five major categories of organic synthetic ingredients is alkyl aryl sulfonates. Remaining surfactant production is composed of unsulfonated esters and ethers, known as nonionics, sulfated alcohols, the amides and the miscellaneous group containing cationics and other anionics. Although the household detergent market represents by far the largest section of the surfactant market, there is a long list of industrial uses in a seemingly endless number of applications for synthetics, as well.

Crest Chemical Corporation has developed a new highly concentrated nonionic softening agent brand named **"Crestosoft AS Conc."** This softener is reported to be unusual in that it is absolutely pure white in color. Crest suggests their new softener for use with acids or alkalies and says that it is compatible with all types of finishes, resins, catalysts, and fixatives.

"Crestosoft AS Conc" is claimed to impart a soft hand to all fabrics, to excell for backfilling and top softening. It is used with urea-formaldehyde, melamine and cyclic resins to obtain soft hand with maximum draping qualities. Used with resins, Crest says the product minimizes tensile strength loss, adds to abrasion resistance, increases tear strength, and improves sewability properties.

Flame Retarding Agents

Manufacturer's Chemical Company, Inc., makes available **"Flame Retardant No. 100,"** which is a low-cost, inorganic, renewable flame retardant for treating all natural and synthetic fibers excepting acetate. It reportedly is particularly effective for fabrics enclosing a large volume of air and burning easily. As an example, one type would be high pile fabrics and velours.

Quite resistant to dry cleanings, but not so to washing, Manufacturer's Chemical says that **"Flame Retardant No. 100"** is applied by padding the goods with a dilute water solution of 8 to 10° Baume, squeezing to about 100 percent wet pick up, and drying at about 200 to 250°F. in a dryer or over hot cans. The treated goods should have 8 to 10 percent dry pick up for suitable flame retardancy.

The stock solution as suggested by the company envolves the following procedure: dissolve one volume of **"Flame Retardant No. 100"** in three volumes of tepid water; add stock solution to water in the padder until gravity is between 8 and 10°Be.; pad the goods through the solution with enough pressure to give 100 percent wet pick up; dry the fabric in the usual way at the above mentioned temperature.

American Cyanamid Company manufactures **"Aerotex NDC,"** a flame retardant formulated to produce non-durable fire-resistant finishes on cotton and rayon fabrics. It will not, however, protect the hydrophobic fabrics, such as acetate, Nylon, Orlon, Dynel, or Dacron.

According to Cyanamid, there is little or no loss of tensile strength in fabrics treated with **"Aerotex NDC."** When overheated, treated fabrics resist tensile strength loss and discoloration. Furthermore, Cyanamid claims that treated fabrics show little tendency to pick up moisture from the air. Thus, the fabrics do not exhibit migration of the fire retardant to the surface of the fabric.

On cellulosic fabrics, Cyanamid says that a minimum of 12 percent solids of **"Aerotex NDC"** based on the weight of the fabric will impart good fire resistance with no afterglowing or afterflaming.

Concerning application methods, the company recommends that the best way is to dissolve the required amount of **"Aerotex NDC"** in heated water and padding the resulting on the cloth. The treated fabric is then dried at whatever temperature is available. Since **"Aerotex NDC"** is not too soluble in water, an impregnation bath temperature of not less than 105°F. is necessary to keep 15 percent of the material in solution.

WHAT'S REPORTED ON HERE

Though coverage in the Trade Name Chemicals & Specialties market report encompasses twenty classes of chemicals, only a few of them are mentioned in this issue. Here's the entire list:

Adhesives, antibacterials and fungicides, antifoaming agents, antioxidants, antistatic agents, blowing agents, catalysts and accelerators, chelating agents, chemically processed oils, emulsions and latexes, enzymes, fatty acid derivatives, feed supplements, filtering materials, ion exchange resins, surfactants, synthetic waxes, textile chemicals, thickening and suspending agents, and ultraviolet absorbers.

If you have suggestions for any additional materials that might be included in this section, write OIL, PAINT AND DRUG REPORTER'S Technical Editor, 30 Church street, New York 7.

Antifoaming Agents

"Hartex Defoamer S" is a cream colored, viscous, emulsion type antifoaming agent with no odor and neutral reaction produced by Hart Products Corporation. Said to operate differently from ordinary antifoaming agents, Hart claims that their product is fast-acting in a wide range of pH values, with no break-down occurring in mildly acid, alkaline or neutral solutions.

Other advantages as listed by Hart for **"Hartex Defoamer S"** include the fact that it disperses readily in warm water and maintains efficiency with no loss through evaporation. Also, the company reports that a little bit does the job, no refoaming takes place, and their product is easier to handle than paste products with no chance of lumpy solutions.

Discussing applications of their antifoaming agent, Hart says that **"Hartex Defoamer S"** is effective in paper mills to overcome foam problems. The company says that although foaming varies from mill to mill their product is capable of controlling foam in most cases.

In printing processes agitation in the color box can cause foamy print pastes, resulting in poor prints. Use of one-half or one ounce of **"Hartex Defoamer S"** is said to solve the problem with no change in paste viscosity.

Control of foaming in the kier, continues Hart, resulting from rapid circulation of liquor in the kier, is achieved with 2 to 4 ounces per 100 gallons of the defoamer. Finally, foam development during scouring can be curbed with as little as 2 to 4 ounces of **"Hartex Defoamer S."**

Hodag Chemical Corporation markets **"Antifoam F-1"** and **"Antifoam F-2,"** which are translucent, syrup-like compounds, based on polymeric silicone fluids. Hodag describes them as food grade antifoams, recommending them for both aqueous and non-aqueous systems.

Both **"Antifoams F-1** and **F-2"** reportedly have 100 percent active concentration, weigh 8.3 to 8.4 pounds per gallon, have specific gravity of 0.99 to 1.0 at about 25°C., a pour point of —30°F., and a flash point above 600°F. The only difference between the properties of the two as listed by Hodag is the fact that **"Antifoam F-1"** is not water dispersible and **"Antifoam F-2"** is.

Solubility traits, continues Hodag, include both antifoams being soluble in amyl acetate, aromatic solvents, 2-ethylhexanol, and kerosene. They are insoluble, on the other hand, in paraffin oil, glycols, ethanol, methanol, and glycerine. Both are said to be stable for periods of time on storage.

To predict the exact amount of antifoam needed for each application is difficult, but Hodag does say that one of the outstanding features of **"Antifoams F-1** and **F-2"** is economical consumption. For ex-

—*Continued on page 51*

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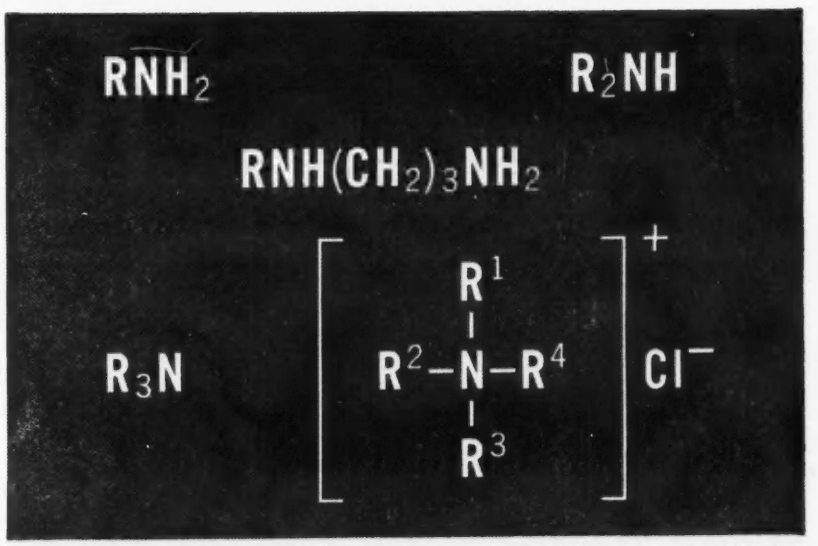

Above left, fatty primary amine; *above right,* fatty secondary amine; *center,* fatty diamine; *lower left,* fatty tertiary amine; *lower right,* fatty quaternary ammonium chloride.

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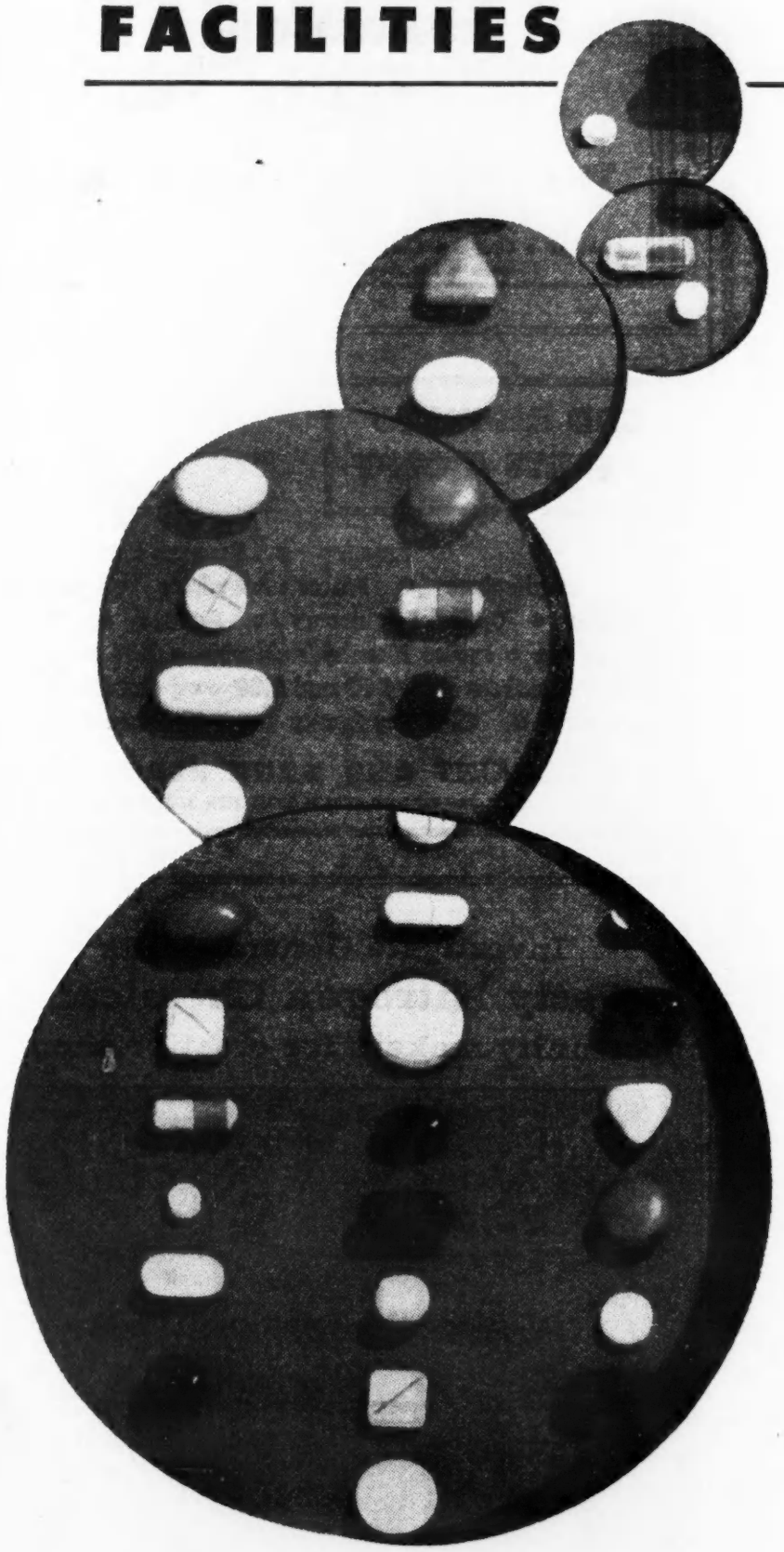

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Drugs, Fine Chemicals

Two US firms are proceeding with plans to build citric acid plants in Mexico. The first of these units to be announced (OPD, 2/1/60) will be located just outside Cuernavaca, some fifty miles south of Mexico City. Designed capacity, which has not been disclosed officially, is reliably reported to be approximately 2 million pounds of citric per year. According to a spokesman for the US firm participating in this joint US-Mexican venture, land and equipment have been purchased and engineering is virtually complete. To add a note of finality and to clear the air of widespread speculation, he says that groundbreaking ceremonies have been scheduled for April 11 and that construction of local buildings will begin in about two weeks.

Announced just a week ago, plans for the other citric acid plant to be built south of the border will not be finalized for another thirty days. Much is already known, however. The plant will be owned 100 percent by a US firm. It will have a minimum annual capacity of 10 million pounds and be located in either of two places, Vera Cruz or Mexico City. Admittedly, the former site has one serious drawback: requisite supplies of sulfuric acid are not readily available. It is being considered simply because it would allow the firm to export all over Latin America with a minimum of inland transportation.

Export business, official spokesman for this firm says, is our principal aim. "We will concentrate on Argentina, Brazil and Colombia and in general the Inter-American trade area." And, he adds, "we will be very happy with one-half of the Mexican market." As he sees it, his firm has one striking advantage: it utilizes blackstrap molasses as a starting point in its manufacturing process while a competitor uses raw sugar, which is not only less plentiful but also one-third more expensive. On top of this, he says, his firm will be exporting, thereby adding to Mexico's exchequer. This last factor apparently is what decided the Mexican government to permit a second citric acid plant and one not owned 51 percent by Mexican interests, to boot.

Since last July, four parties, including the two referred to above, have disclosed plans to build citric plants in Mexico. The first to do so, a group of sugar growers, backed off, reportedly, because financing was unavailable. The second, a US-Mexican combine, also shelved its plans, probably because it discovered that firm No. 3 was well into the plant engineering phase before it decided to tell its plans.

So why all the intrigue. What advantages does one have in getting into the citric business in Mexico. Several reasons, apparently. First, cheaper raw material. Second, cheaper labor. Third, Mexican demand is now of sufficient volume to support its own production. Fourth, any number of specific reasons. The producer all set to go in Mexico, for example, has a captive use right there—production of a pharmaceutical item that is big in Mexico even as it is in the US.

There is also a fifth reason and this, one might say, is sort of psychological: Many people—maybe too many—consider citric a dandy product, a bread-and-butter chemical they'd like to add to their product line. This feeling stems from the fact, unexplained, that the fast rise of a now leading US drug and fine chemicals maker is widely attributed to its longtime enviable position in the citric acid business. This, of course, is much less than the whole truth.

It is unmistakably true, however, that citric has a broad market, steadily expanding. Foods and pharmaceutical applications have been the big thing for years but now sources note citric's increasing use as a cleaning agent for stainless steel equipment such as atomic reactors, boilers and head exchangers.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	April 3, 1959
60.35	60.35	60.35	60.85

For Current Prices see Page 10

Ascorbic Acid—A domestic manufacturer revised ascorbic acid prices last week and others in the trade promptly followed suit. Action brought market prices to $7.50 per kilo for 100-kilo lots or more, and to $7.75 per kilo for lesser quantities. These listings are about 50c. lower than those previously quoted and a full $2.50 lower than list prices.

Impact of foreign material was cited by trade sources as the most significant factor behind the reduction.

As reported here two weeks ago, the Commerce department is now publishing statistics relating to volume and prices of ascorbic imports. Latest figures available from the department are for January when imports were 41,444 pounds.

The same month, US production was 427,094 pounds, exports 35,130.

Cortisone—Prices have been relatively stable since early February when reductions, ranging from 5 to 10c. a gram, dropped listings for cortisone and hydrocortisone to all time lows. In fact, some firming may be indicated by reports that 100-gram lots are now selling at $1.15 per gram, slightly higher than trading prices a short while back. Official schedules remain at $1.90 a gram but the market is generally seen at $1.05.

Trade sources say that demand is good —especially for hydrocortisone—but that this means little in the highly competitive domestic market. Importations usually make the struggle for business a tough one and the fact that exported material is somewhat cheaper than that sold "at home" doesn't help matters any, either.

Dihydrostreptomycin — One producer cut prices of dihydrostreptomycin and streptomycin sulfates a week ago, forcing others in the trade to revise schedules accordingly.

Several sources noted that the action was not warranted by supply and demand factors which appear to be in relatively good balance. All agreed, however, that the next few weeks should see buying interest taper off, an expected seasonal development.

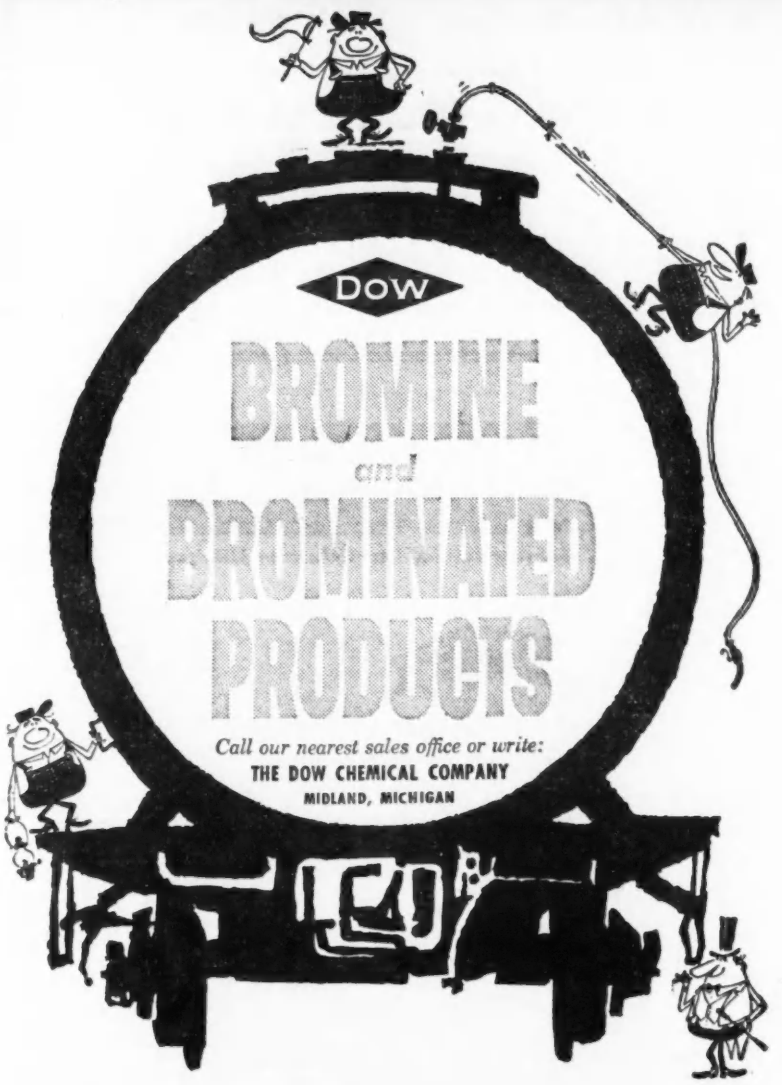
New prices for both DHS and strep are

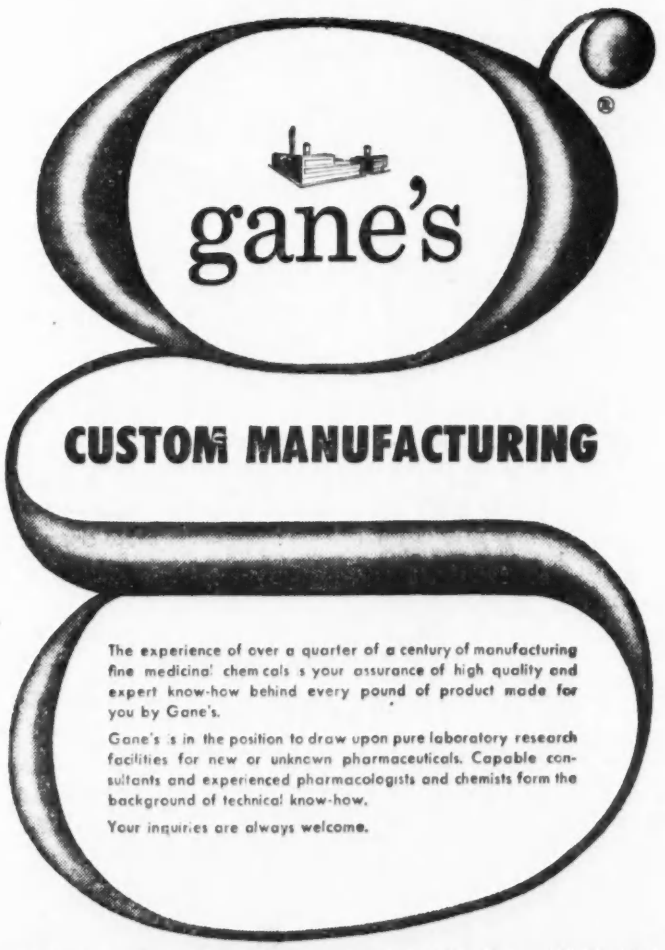
Drug and Fine Chemical Exports: January

Exports of selected drugs and fine chemicals for the months of December, 1959, and January, 1960, as reported by the Bureau of Census were as follows:

		January 1960	*December 1959*
Analgesics and antipyretics	lbs.	41,531	14,648
Antibiotics, n.e.c.*	grs.	5,403,226	13,487,316
Ascorbic Acid	lbs.	35,130	67,547
Aspirin	lbs.	64,221	155,052
B-complex (excluding B_1 and B_{12})	lbs.	34,034	41,226
Bacitracin	100-million units	20,265	8,000
Dihydrostreptomycin	grs.	4,827,415	5,836,481
Pectin and preparations	lbs.	75,109	.....
Penicillin, bulk	million units	7,636,765	5,354,008
Streptomycin, all forms	grs.	3,723,385	2,480,063
Sulfa Drugs	lbs.	42,165	76,409
Thiamin	lbs.	1,165	4,953
Vitamin, A, bulk and medicinal	lbs.	8,765	6,852
Vitamins, n.e.c.*	lbs.	34,857	50,496

* Not elsewhere classified by the Census bureau.

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Drugs, Fine Chemicals

$35 per kilo for 50-kilos, $36 per kilo for lesser quantities, a full $5 lower than previous listings.

Last October, in a move generally welcomed by the trade, a leading producer announced that it would not sell either of the antibiotics at below list prices which range from $40 to $41 per kilo. From that time forward, stability characterized the market.

Reports from trade sources a month ago indicated that buyers were pressing hard to get lower prices. Producers contacted by OPD said they were holding out for list, and apparently they did until recently when competitive conditions demanded a change in tactics.

Imports are not a factor in the DHS and strep markets but there's enough domestic competition (producers and dealers) to prompt some in the trade to state frankly that the business is overcrowded.

Penicillin—Penicillin prices, which have gone progressively lower during the past year, are now reported firm at $21 per billion units for potassium penicillin and $23 per billion units for procaine. And as close as the outsider can determine, the steady downtrend has been halted at last. For one thing, producers seem determined to maintain the current schedule; for a second, prices are now as low as the times and the exigencies of business permit.

Development of three synthetic penicillins has been reported but as yet no one is saying how far along any of these are in the marketing phase. Speculation is, however, that "Syncillin," "Maxipen," and "Chemipen," will eventually capture a good slice of the medicinal business, while having little or no effect on agricultural or feed-grade sales of procaine penicillin which now holds the market.

Quinine—Prices were recently revised. Here are the new listings; all applicable to orders of 1,000 ounces or more: quinine alkaloid 31.05c. per ounce; quinine bisulfate 23.3c. per ounce; quinine hydrochloride 30.30c. per ounce; quinine sulfate 25.75c. per ounce; quinidine sulfate 74½c. per ounce.

Domestic demand for the quinine derivatives is reported rather inactive. Little alkaloid is being brought in.

Riboflavin—Running counter to the general trend in vitamin pricing, riboflavin is quoted unchanged and relatively firm at $36 per kilo, the level established last August. Demand is said to be good.

Unlike C, B_1 and B_6 markets, imports don't figure in the picture here. This fact coupled with producers' determined efforts to keep to official list prices apparently accounts for current stability.

Foreign offerings are pressing hard on the B_1 (thiamin) market and US makers have had no choice but to remain competitive. This they've done at the expense of seeing prices drop to about $25 to $27 per kilo.

B_6 (pyridoxine hydrochloride) makers also have to compete with imports. This explains why market prices are now reported at an all-time low of $110 to $115 per kilo.

As noted in this space recently, the Commerce department is now compiling statistics each month on imports of B_1 and B_6 (as well as C). It is doubtful, however, that the government will do any more than that.

It will be recalled that just a month ago the Treasury department rejected a complaint that Japanese folic acid was being dumped on these shores at less than fair value. That and previous actions—such as the refusal to raise the import duty on tartaric acid and cream of tartar—are a fair indication of what stand the government might take on any similar complaints in the future.

One can sympathize with people in government who make these decisions, of course, because foreign trade has become so involved with foreign policy that the raising of a tariff wall could easily set off an international incident.

Botanicals

Botanicals demand generally is good, prices stable. And excepting such items as agar, imported materials are readily available. Some domestics, on the other hand, are getting tight but dealers expect new crops to be coming in shortly, alleviating possible shortages.

Imports detained by the Food and Drug Administration at the port of New York during the two week period ended March 25, included 3 lots (55 cases) of chamomile flowers 18 bales of lemon peels, and 2 lots (100 cases) of papain.

Agar—New crop has started to come in but as yet the quantity available is not sufficient to reduce prices from the high levels quoted during the past several months.

For Kobe No. 1 strip, last week's listing was $2.40 to $2.50 a pound.

Cascara Sagrada—Stocks of cascara are said to be adequate, demand good. Quote is 34c. to 36c. a pound.

Deertongue Leaves—Litte if any material is available so while demand is good, prices have not been revised. Quote is 55c. to 60c. a pound.

Quince Seed — Quince seed, Persian-type, is listed at $1.30 to $1.40 a pound, unchanged but notably high. Dealers' stocks are on the slim side but demand, reportedly, is moderate to good.

Senega Root—Small stocks have resulted in a price advance. Previously listed at $2.75 a pound, senega is now quoted at $3.

Tolu Balsam—Last week's quote was $3 to $3.25, down about 50c. from that previously listed. The general trend in prices this winter has been upward, however, reflecting higher replacement costs. In January, the listing was $2.65.

American Oil Chemists Make Bates Their Head

American Oil Chemists Society today (April 4) is announcing the election of a new president—R. W. Bates, research associate at Armour & Co., Chicago.

Announcement of the election, which was conducted by mail, is being made at the opening session of the annual meeting in Dallas, Tex.

The in-coming vice-president is A. R. Baldwin, director of research for Cargill, Inc., Minneapolis, Minn.

The new secretary is K. F. Mattil, associate director of research for Swift & Co., Chicago, while the secretary for the coming year is A. F. Kapecki, of Wurster & Sanger, Inc., Chicago.

Members-at-large of the governing board will be J. C. Harris, assistant director of research, Monsanto Chemical Company, in Dayton, Ohio; W. O. Lundberg, executive director, Hormel Institute, Austin, Minn.; and A. E. MacGee, manager, industrial division, Skelly Oil Company, Kansas City, Mo.

SOCMA to Hear Review Of Alcoholism Program

Dr. S. Charles Franco will speak on "Problem Drinking in Industry" at the next monthly luncheon meeting of the Synthetic Organic Chemical Manufacturers' Association which has been slated for Tuesday, April 12, at the Roosevelt hotel in New York. Dr. Franco is executive director of the medical department of Consolidated Edison Company of New York, Inc.

As a leading authority on the subject of alcoholism in industry, Dr. Franco will review Consolidated Edison's experience in this field since the company adopted an organized program some twelve years ago.

Pesticide Haters

—*Continued from page 7*

in this case as well as alarms sounded by others on the problem.

"The need for adequate findings on the effect of DDT is of vital concern not only to wildlife conservationists and owners of domestic animals but to all who drink milk or eat food from sprayed gardens.

"We are told by the scientists that DDT is an insoluble that cows get from barns and fields that have been sprayed with it. The DDT enters the milk and becomes stored by people in the fatty tissues of the body. Because it is a potential menace to health the Food & Drug Administration maintains that any DDT in milk in interstate commerce is illegal.

"The effect of DDT on birds and on their reproductive powers and on other wildlife, the effect of DDT as a factor in certain types of disease in man such as poliomyelitis, hepatitis, leukemia and other blood disorders, the mounting sterility among our bald eagles have led to increasing concern in many quarters about the wisdom of the use of this and other insecticides.

"The alarms that many experts and responsible officials have raised about the perils of DDT underline the public importance of this case."

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Obituaries

Ordine C. Ferris

Ordine C. Ferris, purchasing manager for Schering Corporation, Bloomfield, N. J., died March 25 in Montclair, N. J. He was fifty-eight years old.

In 1941, three years after joining Schering, Mr. Ferris was named purchasing manager of the pharmaceutical company and held that position until his death.

Albert E. Boyer, chief chemist for Pabst Brewing Company, died March 27 in Milwaukee, Wis. He was fifty-seven years old.

George W. Chapman, manager of the mid-continent production division of Sun Oil Company and an employee of the firm for thirty years, died March 28 in Tulsa, Okla. He was fifty-six years old.

John Schlintz, consultant with Sherwin-Williams Company at Newark, N.J., died March 29 in South Orange, N.J. He was sixty-seven years old.

Frederick Wolf, a member of the materials division staff of Esso Standard Oil Company, died March 27 in Roselle Park, N. J. He was fifty years old.

Cachou, Seaweed Measures Go to the President's Desk

Two bills removing the 10 percent toilet goods tax from aromatic cachous and placing imported ground, powdered or granulated seaweed on the free list were passed by the senate and forwarded to the President for his signature last week.

Aromatic cachous are aromatic pellets, such as "Sen Sen," made of licorice, cashew nuts, gum, etc., which are chewed for the purpose of sweetening the breath.

The finance committee said, in reporting the bill (HR 4586), that it did not believe these products should be taxed as toilet preparations since they are more nearly like mouthwashes and candied mints than like the externally applied toilet preparations which comprise the rest of the articles subject to the toilet preparations tax.

The bill removing import duties on seaweed (HR 5387) places this product in the same category as kelp. At the present time the duty is 5 percent ad valorem. The uses are much the same as kelp, namely, as a jelling, thickening agent in certain prepared foods and extracts.

Standard International To Buy Adell Chemical

Standard International Corporation, Andover, Mass., has agreed to buy Adell Chemical Company, Inc., Holyoke, Mass. The transaction is expected to be formally closed within sixty to ninety days. Financial details were not disclosed.

Adell, producer of "Lestoil" detergent, will become a wholly-owned subsidiary of Standard International. J. L. Barowsky will continue as chairman of the subsidiary.

Standard International controls several other firms in the US in non-chemical fields. Among its affiliates abroad are Boltawerk, a Nurenberg, Germany, plastics maker; and Bolta-Argentina, an Argentine plastics company.

Cosmetic Buyers to Hear Lipscomb

Charles T. Lipscomb, jr., will be guest speaker at the April 14 luncheon meeting of Cosmetic Industry Buyers & Suppliers Association at the Savoy-Hilton hotel in New York. Mr. Lipscomb, who is president of the American Newspaper Publishers Association's bureau of advertising, will speak on "Selling and Advertising."

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See page 138 — 1960 Chemical Materials Catalog
See page 66 — 1960 Buyers Guide Issue

Trade Name Chemicals

—Continued from page 45

ample, in food processing, concentrations of one to ten parts per million are usual, while some industrial applications may require somewhat larger dosages.

Catalysts & Accelerators

Crest Chemical Company manufactures **"Crestex Catalyst A,"** a latent catalyst for urea-formaldehyde, modified urea-formaldehyde and melamine resins. Crest describes it as being a curing agent of the amino type and containing no ammonium salts.

"Crestex Catalyst A," a clear liquid with an approximate pH of 7.5, it is said to be compatible with all types of softeners, emulsions and penetrants used in resin applications. Furthermore, it is compatible with dye fixatives and copper salts that are sometimes incorporated, states Crest.

According to the company **"Crestex Catalyst A"** lengthens the life of resin treating solutions. Then too, Crest claims that with no change in curing requirements, resin baths may be kept for several days and about 24 hours at 140°F.

Discussing applications, Crest goes on to say that **"Crestex Catalyst A"** is useful for resin applications since it controls curing conditions, limits the danger of tendering, and decreases tensile strength. About the amount of the catalyst needed for good results, Crest suggests that three to four percent **"Crestex Catalyst A"** be used on the weight of the paste resin. And with urea and modified urea resins, about 10 percent based on the weight of resin is recommended.

Houdry Process Corporation markets **"Dabco,"** which is their trademark for triethylenediamine. **"Dabco"** is said to be characterized by its activity for catalyzing reactions of isocyanates with active hydrogen compounds. As an example, Houdry claims that a model system consisting of phenyl isocyanate and 2-ethylhexanol is accelerated up to ten times more effectively by **"Dabco"** than by other commercial amines.

The company goes on to explain that **"Dabco"** is not a strong base. Houdry believes that due to its somewhat spherical shape, which shows no protruding side chain or substituents, the **"Dabco"** molecule can maintain high catalytic activity for the various isocyanate reactions at the correct level unaffected by increases in molecular weight or viscosity of the polymer during the course of the reaction. Thus, Houdry describes the action of **"Dabco"** as a sort of rolling from one reactive group to another.

Concerning applications of **"Dabco,"** Houdry says that it is widely used as a catalyst in all types of urethane systems including flexible and rigid foams, elastomers and coatings. This catalyst is also used in the production of thermally and hydrolytically stable one-shot polyether foams.

Houdry reports that **"Dabco"** imparts to the one-shot polyether system the balanced catalysis necessary to produce a successful foam. And this balanced catalysis includes the three basic reactions: chain extension, cross-linkage, and gas evolution.

Surface Active Agents

General Mills has on the market a relatively new line of products called the **"Deriphats."** These are N-fatty amino acid derivatives containing both amino and carboxylic groups and are classed as being amphoteric surfactants. According to the company, a large number of products are possible from this reaction between fatty primary amines and acrylic monomers, but, at the present, the **"Deriphat"** line is based on lauryl, coco and tallow primary amines.

Unlike the conventional anionic, cationic or nonionic surfactants, amphoterics in general, and more specifically the **"Deriphats,"** are said to be pH dependent in their performance properties. Explaining this, General Mills, says that in the acidic pH range, the amphoteric is there in cationic form and exhibitis a set of predominantly cationic properties. In the alkaline range the amphoteric is there in anionic form with anionic properties. In a basically neutral pH range, however, **"Deriphats"** are said to exhibit truly amphoteric characteristics.

The **"Deriphats"** are also reported to have good foaming properties; good solubility in hard water, and even in high concentrations of inorganic salts; compatibility with a wide range of other surfactants; corrosion inhibition; and excellent emulsifying ability.

Some areas where the **"Deriphats"** have distinguished themselves include in shampoo formulations, industrial cleaners, and petroleum applications. In shampoos General Mills claims that the **"Deriphats"** are valuable because of their broad compatibility range which gives great latitude in formulations; and they contribute substantively to hair manageability. This is said to be due to the similarity in the structure of the **"Deriphats"** and the protein of the hair and skin.

Key properties which make the **"Deriphats"** useful in the industrial cleaning field are their very high detergency values, effective solubilizing for inorganic builders, good solubility in the presence of concentrated inorganic salts and alkalies and their corrosion-inhibiting qualities.

As for petroleum applications, General Mills says that the **"Deriphats"** are desirable because they are soluble in strong mineral acids and are good inhibitirs for the acids. Furthermore, they supposedly hold in their surface activity in acid solution. Another use for the **"Deriphats"** in the petroleum industry, suggests General Mills, is as foaming agents in air drilling operations.

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280 bgs, Bremen
AMMONIUM CARBONATE—50 dms, BASF Inc, Rotterdam
265 cs, American Agricultural Chemical Co, Glasgow
AMMONIUM CHLORIDE—199 bgs, Chemical Manufacturing Co, Liverpool
AMYRIS OIL—2 dms, Port Au Prince
ANILINE DYES—23 dms, Carbic Hoechst Corp, Rotterdam
3 dms, Heemsoth Kerner, Liverpool
54 dms, H Bruckmann & Lorbacher, Bremen
23 dms, Putnam Chemical Corp, Hamburg
52 dms, Sandoz Inc, Havre
117 dms, Havre
ANNATTO SEED—100 bgs, H Marmorek & Son, Rio de Janeiro
ANTHRAQUINONE—91 dms, Francolor Inc, Havre
ARABIC GUM—410 bgs, Morgan Guaranty Trust Co, Port Sudan
L-ARGININE MONOHYDROCHLORIDE—4 cs, Ajinomoto Co, Yokohama
ARSENIC, WHITE—814 dms, American Firstoline Corp, Marseille
ASBESTOS FIBER—200 bgs, Davies Turner & Co, Durban
200 bgs, N American Asbestos Corp, Capetown
4,020 bgs, Johns Manville Corp, Lourenco Marques
BARIUM CHLORIDE—330 bgs, Antwerp
BEESWAX—182 bgs, Djibouti
76 bgs, Tampico
BOIS DE ROSE OIL—14 dms, Elton Trading Co, Callao
19 dms, Hollander Trading Corp, Callao
3 dms, Chase Manhattan Bank Callao
BRONZE POWDER—65 dms, Crescent Bronze Powder Co, Hamburg
55 dms, Allied Manufacturing Co, Hamburg
23 dms, Chase Manhattan Bank, Hamburg
CALCIUM CARBONATE—1,200 bgs, N H Weitzner, Antwerp
CAMPHOR OIL—25 dms, Ungerer & Co, Yokohama
CANDELILLA WAX—94 bgs, Cornelius Wax Refining Corp, Tampico
94 bgs, M Argueso & Co, Tampico
94 bgs, Frank B Ross, Tampico
94 bgs, Smith & Nichols, Tampico
375 bgs, Tampico
CARAWAY SEED—200 bgs, Louis Furth, Rotterdam
200 bgs, Sokol & Co, Rotterdam
500 bgs, Levy & Levis Co, Rotterdam
200 bgs, Transit Export & Import Corp, Rotterdam
500 bgs, H J Spitz, Rotterdam
100 bgs, Frank Tea & Spice Co, Rotterdam
CARBON, ACTIVATED—140 bgs, Gallagher & Ascher, Liverpool
CARBON TETRACHLORIDE—55 dms, Genoa
CARNAUBA WAX—156 bgs, Bank of N Y, Natal
123 bgs, Cornelius Wax Refining Corp, Natal
112 bgs, M Argueso & Co, Natal
63 bgs, J W Hanson & Co, Rio de Janeiro
CASEIN—1,514 bgs, Eugenio Lang, Buenos Aires
1,000 bgs, Tupman Thurlow, Buenos Aires
2,000 bgs, F C Gerlach, Buenos Aires
1,500 bgs, P A Dunkel, Buenos Aires
468 bgs, A J Mills & Co, Auckland
500 bgs, P A Dunkel, Gdynia
2,223 bgs, J R Spellacy, Melbourne
2,000 bgs, Pacific National Bank, Melbourne
1,000 bgs, Crawford Kish & Co, Gdynia
2,000 bgs, Buenos Aires
617 bgs, Hamburg
CASSIA—279 bls, M J Golombeck, Rotterdam
825 bls, A G Dunn, Rotterdam
263 bls, K H Landes & Co, Rotterdam
578 bls, Ludwig Mueller, Rotterdam
365 bls, C M Van Sillevoldt, Rotterdam
271 bls, J F Frank, Rotterdam
CASTOR OIL—200 tons, George Degen & Co, Recife
309 tons, Salvador
CELERY SEED—87 bgs, Hismoco American Co, Bombay
CETYL ALCOHOL—42 cs, Rohner Gehrig, Liverpool
CHESTNUT EXTRACT—1,234 bgs, Barkey Importing Co, Genoa
CHLORINATED RUBBER—200 bgs, C M C Chemicals Inc, Liverpool
CHLOROPROPAMIDE—2 dms, Genoa
CITRONELLA OIL—25 dms, Magnus Mabee & Reynard, Keelung
25 dms, L A Champon & Co, Keelung
CLOVE—100 bgs, Max Van Pels, Mombasa
150 bgs, Zanzibar
CLOVE OIL—25 dms, Magnus Mabee & Reynard, Mombasa
54 dms, Djibouti
CLOVESTEM OIL—24 dms, French American Bank Corp, Zanzibar
COBALT OXIDE—210 cks, Antwerp
COBALT POWDER—50 dms, C Hardy, Havre
COBALT SULFATE—50 dms, Industrial Chemical & Dye Co, Liverpool
COCONUT OIL—600 tons, American Trust Co, Cebu
CODLIVER MEAL—300 bgs, Dyson Shipping Co, Reykjavik
CODLIVER OIL—130 tons, Dyson Shipping Co, Reykjavik
COPAL GUM—250 bgs, S Winterbourne & Co, Matadi
180 bgs, O G Innes Corp, Matadi
62 bgs, S Winterbourne & Co, Manila
63 bgs, Wm H Scheel, Manila
141 bkls, Archer Daniels Midland Co, Macassar
COPRA OIL—460 tons, E F Drew & Co, Marseille
CORIANDER OIL—1 dm, Dodge & Olcott, Gdynia
CORN OIL—260 tons, Corn Products Co, Rotterdam
CORN STARCH—356 bgs, Manhattan Adhesives Corp, Antwerp
1,120 bgs, Rotterdam
800 bgs, Antwerp
CREAM OF TARTAR—110 dms, Wm E Martin & Sons, Rotterdam
520 bgs, Nylos Trading Co, Genoa
CUBE ROOT—32 bgs, Foreign Domestic Distributors, Callao
CUMIN SEED—700 bgs, Chase Manhattan Bank, Khorramshahr
300 bgs, American Trust Co, Khorramshahr
564 bgs, Khorramshahr
CUTTLEFISH BONE—230 cs, Tunis
CYANURIC CHLORIDE—22 dms, Fallek Products Co, Yokohama
DAMMAR GUM—77 bgs, O G Innes Corp, Singapore
DEGRAS—93 dms, Lanaetex Products, Nagoya
33 dms, N I Malmstrom, Rotterdam
53 dms, Chase Manhattan Bank, Melbourne
DEXTRIN—600 bgs, Stein Hall & Co, Rotterdam
400 bgs, Bestick Adhesives, Rotterdam
400 bgs, Rotterdam
DIACETYL—10 cs, Fritzsche Bros, Rotterdam
DICYANDIAMIDE—100 bgs, Vandergrift Co, Yokohama
DIPYRONE—20 dms, Gyma Lab, Rotterdam
DYES, COALTAR—92 dms, H Bruckmann & Lorbacher, Hamburg
10 dms, Orlex Dyes & Chemical Corp, Hamburg
11 dms, Caldwell & Co, Hamburg
2 dms, Naftone Inc, Hamburg
EARTH COLORS—450 bgs, Naftone Inc, Rotterdam
1,045 bgs, Reichard Coulston, Larnaca
EPHEDRNE—3 cs, Havre
EUCALYPTOL—12 dms, Alicante
EUPHORBIA—47 bls, Meer Corp, Tuticorin
FENNEL SEED—164 bgs, M J Golombeck, Bombay
82 bgs, Kellys American Ltd, Bombay
75 bgs, Buenos Aires
FERRIC SULFATE—75 dms, Liverpool
FUEL OIL—317,386 bbls, Humble Oil Co, Caripito
270,952 bbls, Humble Oil Co, Aruba
204,399 bbls, Humble Oil Co, Las Piedras
131,522 bbls, Hess Inc, Punta Cardon
157,809 bbls, Texaco Co, Bahrain
108,000 bbls, Mobil Oil Co, Aruba
113,394 bbls, New England Petroleum Corp, Curacao
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94,087 bbls, Metropolitan Petroleum Corp, Punta Cardon
58,823 bbls, Royal Petroleum Corp, Curacao
55,797 bbls, Royal Petroleum Corp, Aruba
GALL—3 cks, Wilson & Co, Auckland
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150 bgs, Manhattan Adhesives Corp, Hamburg
300 bgs, King Shipping Co, Hamburg
200 bgs, King Shipping Co, Antwerp
331 bgs, Transatlantic Animal By Products Corp, Antwerp
200 bgs, T M Duche & Sons, Gothenburg
75 dms, H Bruckmann & Lorbacher, Rotterdam
400 bgs, Transatlantic Animal By Products Corp, Rotterdam
600 bgs, T M Duche & Sons, Antwerp
110 bgs, Hamburg
GERANIUM OIL—4 dms, Magnus Mabee & Reynard, Marseille
GERMANIUM DIOXIDE—235 cs, American Metal Climax, Antwerp
GINGER—80 bgs, Mincing Trading Corp, Cochin
GLUE—1,000 bgs, First National Boston, Hamburg
299 bgs, Jung Forwarding Co, Hamburg
20 dms, M Corbett, Bordeaux
GLUE, BONE—550 bgs, First National Boston, Rotterdam
300 bgs, First National Boston, Hamburg
GLUESTOCK—196 bgs, E J Lang, Liverpool
GLUTAMIC ACID—40 dms, Havre
GLYCOL MONOSALICYLATE—15 cs, Havre
GUAR GUM—1,193 bgs, J L Quesada, Valencia
GYPSUM—200 bgs, A Gusmer, Liverpool
GYPSUM, CRUDE—15,854 tons, National Gypsum Co, Halifax
20,146 tons, U S Gypsum Co, Hantsport
HEXACHLOROETHANE—300 bgs, Henley & Co, Hamburg
HOOF & HORNMEAL—510 bgs, Rio de Janeiro
HYDROCITRONELLAL—5 dms, George Uhe & Co, Marseille
IODINE, CRUDE—25 bbls, Bunge Corp, Yokohama
75 kgs, Mitsubishi International Corp, Yokohama
IRON OXIDE—870 bgs, Reichard Coulston, Malaga
980 bgs, C K Williams Co, Malaga
441 bgs, Whittaker Clark & Daniels, Malaga
224 bgs, Whittaker Clark & Daniels, Liverpool
KARAYA GUM—122 bgs, Stein Hall & Co, Bombay
LACTOSE—5 dms, R J Saunders & Co, Rotterdam
40 dms, Rotterdam
LAVANDIN OIL—1 ck, Brown Bros, Cannes
LEAD RED—165 bgs, Rotterdam
LEAD, WHITE—303 bgs, Rotterdam
LEAD NITRATE—20 cks, London
LEMON OIL—1 dm, C T Wilson Co, Vera Cruz
2 dms, Ungerer & Co, Vera Cruz
LEMONGRASS OIL—34 dms, George Uhe Co, Cochin
11 dms, Volkart Bros, Cochin
LIME OIL—1 dm, P H Petry, Port au Prince
LITHARGE—184 dms, Eagle Picher Co, Tampico
LIVER EXTRACT—17 dms, Wilson & Co, Buenos Aires
LIVER PASTE—5 dms, Reheis Co, Montevideo
LIVER POWDER—52 dms, Reheis Co, Montevideo
LOCUST BEAN GUM—1,000 bgs, J L Quesada, Portimao
30 bbls, Oxphen Products Co, Genoa
406 bgs, J L Quesada, Valencia
300 bgs, P A Dunkel, Rotterdam
450 bgs, T M Duche & Sons, Rotterdam
200 bgs, Portimao
L-LYSINE MONOHYDROCHLORIDE—8 dms, Ajinomoto Co, Yokohama
MACE—27 cs, K H Landes & Co, Singapore
50 cs, Singapore
MAGNESITE—40 dms, Jerdan Chemical Corp, Hamburg
MAGNESIUM CARBONATE—1,200 bgs, Reheis Co, Liverpool
MANDARIN OIL—10 cs, Messina
MANGROVE EXTRACT—1,000 bgs, Singapore
MENTHOL—50 cs, Schwabach & Co, Santos
37 cs, Marklin Chemical Corp, Santos
MERCURY ASH—46 dms, Vera Cruz
METHYISOPROPYL KETONE—10 dms, General Aniline & Film Corp, Rotterdam
MINERAL COLORS—472 bgs, Revelli Chemicals Inc, Hamburg
MOLASSES—947 tons, W R Grace & Co, Salaverry
MOLASSES, BEET—8,828 tons, Chas Pfizer & Co, Havre
MONOCHLOROACETIC ACID—101 dms, Orlex Dyes & Chemical Corp, Bremen
340 dms, Orlex Dyes & Chemical Corp, Hamburg
MONOSODIUM GLUTAMATE—40 dms, Genoa
MYROBALANS—2,400 bgs, First National Chicago, Bombay
MYROBALANS EXTRACT—200 bgs, Barkey Importing Co, Liverpool
MYRRH GUM—40 bgs, Max Van Pels, Aden
NAPHTHALENE—265 bgs, J N Forker, Liverpool
NICOTINAMIDE—20 bbls, Fallek Products Co, Genoa
NIGER SEED—182 bgs, Hartz Mountain Products, Massawa
182 bgs, Wagner Bros, Massawa
76 bgs, N American Grain Corp, Massawa
NUTMEG—100 bgs, K H Landes & Co, Port of Spain
298 bgs, Lo Curto & Funk, Rotterdam
115 bgs, Dodge & Olcott, Rotterdam
70 bgs, Hismoco American Co, Singapore
OCHRE—1,120 bgs, Landers Segal Color Co, Capetown
OLEORESIN PAPRIKA—91 cs, Alicante
OLIBANUM GUM—68 bgs, S B Penick & Co, Massawa
30 bgs, Tragacanth Importing Corp, Massawa
50 bgs, D G Manlok, Massawa
OLIVE OIL—100 dms, National City Bank, Alicante
99 dms, Swiss Credit Bank, Malaga
100 dms, Santos Import Export Corp, Cadiz
130 dms, Manufacturers Trust Co, Seville
25 dms, National City Bank, Seville
125 dms, Atlantic Bank of N Y, Seville
75 dms, Hanover Bank, Seville
100 dms, Swiss Credit Bank, Seville
245 dms, Seville
25 dms, Alicante
OURICURY WAX—56 bgs, Biddle Sawyer Corp, Salvador
OXBILE—17 dms, Merck & Co, Durban
3 dms, Reheis Co, Montevideo
OXGALL—3 dms, Wilson Lab, Buenaventura
8 dms, Wilson Lab, Santos
PALM OIL—75 dms, Matadi
PALMKERNEL OIL—387 tons, E F Drew & Co, Matadi
414 tons, Durkee Famous Foods, Matadi
320 tons, Procter & Gamble Co, Matadi
504 tons, E F Drew & Co, Manchester
PAPAIN—24 dms, Paul Lewis Lab, Matadi
110 cs, Chas L Huisking & Co, Mombasa
68 cs, Bemo Shipping Co, Mombasa
80 cs, Mombasa
660 bgs, M J Golombeck, Hamburg
200 bgs, Meer Corp, Hamburg
250 bgs, H Schlicting, Alicante
400 bgs, A A Sayia, Alicante
100 bgs, J Weinstein, Alicante
250 bgs, R F Downing, Alicante
475 bgs, Gallagher & Ascher, Alicante
400 bgs, Alicante
PEATMOSS—250 bls, Halfmoon Trading Co, Rotterdam
786 bls, E Dunwoody, Rotterdam
6,000 bls, E J Lang, Bremen
7,000 bls, Premier Peatmoss Corp, Gdynia
2,355 bls, Marine Midland Trust Co, Bremen
2,000 bls, Bruco Peatmoss Corp, Bremen
1,800 bls, Premier Peatmoss Corp, Gothenburg
1,000 bls, E Dunwoody, Bremen
2,298 bls, E J Lang, Hamburg
600 bls, S Davis, Hamburg
1,700 bls, Premier Peatmoss Corp, Bremen
1,500 bls, Garden Supply Co, Bremen
700 bls, Bruco Peatmoss Corp, Hamburg
2,000 bls, Ascot Peatmoss Corp, Hamburg
PEPPER, BLACK—960 bgs, Ludwig Mueller, Cochin
80 bgs, Plantation & Colonial Products, Cochin
80 bgs, Kellys America Ltd, Cochin
320 bgs, Borneo Sumatra Trading Co, Cochin
70 bgs, V Cordovi, Singapore
160 bgs, Ludwig Mueller, Calicut
80 bgs, M J Golombeck, Calicut
1,360 bgs, A G Dunn, Cochin
160 bgs, Reliable Mercantile Co, Cochin
240 bgs, C M Van Sillevoldt, Cochin
400 bgs, Mutual Spice Co, Cochin
120 bgs, J H Elton, Singapore
40 bgs, Polak Trading Co, Singapore
400 bgs, Cochin
160 bgs, Alleppey
160 bgs, Singapore
160 bgs, Colombo
PEPPER, RED—200 bgs, Hismoco American Co, Yokohama
120 bgs, California Commodities Corp, Kobe
100 bgs, M J Golombeck, Yokohama
PETITGRAIN OIL—6 dms, Hollander Trading Corp, Buenos Aires
PETROLEUM, CRUDE—181,511 bbls, Mobil Oil Co, Puerto La Cruz
245,746 bbls, Phillips Petroleum Co, La Salina
65,000 bbls, Derby Refining Co, Puerto La Cruz
53,000 bbls, Bay Refining Co, Puerto La Cruz
275,802 bbls, California Oil Co, Sidon
183,664 bbls, Eastern States Petroleum Co, Maracaibo
116,048 bbls, Hess Inc, Punta Cardon
PHTHALIC ANHYDRIDE—1,000 bgs, Fallek Products Co, Leghorn
POLLACKLIVER OIL—50 dms, Peder Devold Oil Co, Yokohama
POLYVINYL ALCOHOL—500 bgs, Marubeni Iida Co, Kobe
POLYVINYL CHLORIDE—25 cs, Robeco Chemicals, Yokohama
POLYVINYL CHLORIDE RESIN—500 bgs, Nichimen Co, Nagoya
POPPYSEED—100 bgs, Biddle Purchasing Co, Rotterdam
100 bgs, H Marmorek & Son, Rotterdam
150 bgs, R J Spitz, Rotterdam
150 bgs, M J Golombeck, Rotterdam
100 bgs, Frank Tea & Spice Co, Rotterdam
300 bgs, American Almond Products Co, Gdyni
POTASSIUM CYANIDE—100 dms, Ugine Industries, Havre
POTASSIUM FERROCYANIDE—322 bgs, Filo Color & Chemical Corp, Rotterdam
PRUSSIAN BLUE—60 dms, Transatlantic Pigment Corp, Rotterdam
25 dms, Van Oppen & Co, Liverpool
PYRETHRUM EXTRACT—30 dms, Prentiss Drug & Chemical Co, Matadi
50 dms, McLaughlin Gormley King Co, Matadi
32 dms, Mombasa
PYRIDINE-2-ALDEHYDE—1 cs, Schering Corp, Hamburg
PYRIDOXINE HYDROCHLORIDE—3 cs, Takamine Overseas Inc, Yokohmama
QUEBRACHO EXTRACT—4,163 bgs, American Tanners Ltd, Buenos Aires
4,375 bgs, Tanimex Corp, Buenos Aires
6,672 bgs, Buenos Aires
QUINCE SEED—89 bgs, Khorramshahr
QUINIDINE SULFATE—20 dms, Lo Curto & Funk, Hamburg
QUINOLIN—20 dms, B Lemke Co, Rotterdam
R-SALT—31 dms, Danwill Co, Genoa
RICE STARCH—180 bgs, Manhattan Adhesives Corp, Bremen
230 bgs, Aurora Manufacturing Co, Rotterdam
RUTILE SAND—540 bgs, Metal Traders Inc, Newcastle
2,700 bgs, Metal Traders Inc, Brisbane
3,600 bgs, International Titanium Corp, Brisbane
RYANIA—3,300 bdls, Port of Spain
SACCHARIN—75 dms, Certified Aspirin Co, Yokohama
SAFFLOWER—13 bgs, Vera Cruz
SAGE LEAVES—300 bls, Louis Furth, Rijeka
SANDALWOOD OIL—7 cs, Givaudan Corp, Bombay
7 cs, Lo Curto & Funk, Bombay
SEEDLAC—500 bgs, United Shellac Corp, Bangkok
SHELLAC—41 bgs, F H Paul & Stein Bros, Hamburg
200 bgs, Mantrose Corp, Bremen
227 bgs, I Levine, Hamburg
SILICA—4 dms, Catalyst Development Corp, Genoa
SODIUM ALGINATE—50 dms, Stein Hall & Co, Glasgow
SODIUM BICARBONATE—200 bgs, Chemical Manufacturing Co, Liverpool
SODIUM CHLORIDE—100 dms, Independent Chemical Corp, Hamburg
SODIUM CYANIDE—300 dms, Chemical Manufacturing Co, Liverpool
150 dms, Ugine Industries, Havre
SODIUM PERBORATE TETRAHYDRATE—500 bgs, London
SODIUM THIOSULFATE—400 bgs, Chemical Manufacturing Co, Liverpool
STARCH—1,600 bgs, Morningstar Paisley Inc, Rotterdam
STRAMONIUM LEAVES—142 bgs, Buenos Aires
SULFADIMETHOXINE—2 dms, Genoa
SULFAGUANIDINE—32 dms, Alkar Trading Co, Rotterdam
SULFAMETHOXYPYRIDAZINE—2 dms, Genoa
TAPIOCA FLOUR—3,350 bgs, Stein Hall & Co, Kohsichang
1,564 bgs, Morningstar Paisley Inc, Kohsichang
1,000 bgs, Kohsichang
TARA POWDER—2,128 bgs, Foreign Domestic Distributors, Callao
TARTARIC ACID—100 bgs, Frank Samuel & Co, Marseille
50 bgs, Fallek Products Co, Leghorn
THEOBROMINE—6 dms, Rotterdam
THIAMINE MONONITRATE—6 dms, Takamine Overseas Inc, Yokohama
TITANIUM DIOXIDE, ANATASE—1,317 bgs, Marubeni Iida Co, Kobe
13 kgs, Celanese Corp of America, Liverpool
800 bgs, Nylos Trading Co, Genoa
TITANIUM DIOXIDE, RUTILE—1,400 bgs, Nylos Trading Co, Genoa
TRICHLOROETHYLENE—300 dms, Chemical Manufacturing Co, Liverpool
TRIMETHYLENE GLYCOL—2 cns, Aceto Chemical Co, Hamburg
TURMERIC—320 bgs, Kellys America Ltd, Alleppey
160 bgs, Cochin
ULTRAMARINE BLUE—100 bgs, Whittaker Clark & Daniels, Liverpool
UMBER—360 bgs, Smith Chemical & Color Co, Larnaca
UREA—1,000 bgs, Nylos Trading Co, Genoa
UREA, SYNTHETIC—600 bgs, Chemical Manufacturing Co, Liverpool
VALONIA CUPS—3,928 bgs, Barkey Importing Co, Izmir
WATTLE BARK—3,238 bls, Bowring & Co, Capetown
WATTLE EXTRACT—507 bgs, American Dyewood Co, Durban
YLANG YLANG OIL—1 dm, Djibouti
ZINC OXIDE—800 bgs, Pigment & Chemical Co, London
ZIRCON SAND—4,960 bgs, International Titanium Corp, Newcastle

Los Angeles

CALCIUM CARBONATE—6,000 bgs, Pluess Stauffer, Antwerp
COPRA—500 tons, American Trust Co, Cebu
1,500 tons, American Trust Co, Keelung
10,000 bgs, Pacific Vegetable Oil Corp, Cebu
CORN STARCH—600 bgs, Bohemia Biscuit Co, Bremen
DEXTRIN—400 bgs, Morningstar Paisley Inc, Amsterdam
300 bgs, Arabol Manufacturing Co, Amsterdam
EARTH COLORS—200 bgs, American Chemicals & Pigment Corp, Bremen
225 bgs, Naftone Inc, Rotterdam
160 bgs, H Hartry, Rotterdam
GYPSUM, CRUDE—18,093 tons, Kaiser Gypsum Co, San Marcos
PEPPER, RED—100 bgs, American Commerce Co, Yokohama
265 bgs, Hirasaki Farms, Kobe
100 bgs, Hismoco American Co, Yokohama
PETROLEUM CRUDE—293,061 bbls, Mobil Oil Co, Dumai
RICE STARCH—140 bgs, American Key Products, Amsterdam
SEEDLAC—150 bgs, East Asiatic Co, Bangkok
SESAME SEED—50 bgs, W R Grace & Co, Corinto
150 bgs, Hismoco American Co, Corinto
350 bgs, Bank of California, Corinto
TAPIOCA FLOUR—6,094 bgs, Stein Hall & Co, Kohsichang
560 bgs, Poons Co, Kohsichang
400 bgs, Morningstar Paisley Inc, Kohsichang

Philadelphia

ASBESTOS FIBER—3,920 bgs, Chas Kurz & Co, Lourenco Marques
1,000 bgs, Rubberoid Co, Lourenco Marques
BONEMEAL—5,000 bgs, Kind & Knox, Calcutta
3,000 bgs, Phila National Bank, Calcutta
4,132 bgs, Phila National Bank, Bombay
3,556 bgs, Gilbert Co, Bhaunagar

—Continued on page 66

PROMETED: Henry E. Pence, advanced to manager of technical service for the zinc oxide department of St. Joseph Lead Company, with his office at the plant in Monaca, Pa.

HEW Is Getting More, Commerce Getting Less

Congress has moved closer to action on three money bills in which the chemical industry has a major stake. The legislators last week increased proposed appropriations for Department of Health Education & Welfare and the Department of the Interior. On the other hand, the lawmakers decided to cut funds for Department of Commerce.

By a record vote of 342 to 10 the house approved an appropriation of $542,245,300 for HEW, an increase of $197.5 million over the amount recommended in the President's budget.

Most of the added funds were set aside for aid to school districts overcrowded because of federal installations, but $55 million of the total was earmarked for the National Institutes of Health to give that agency a total of $445 million for the new fiscal year.

The increase is being divided among these activities—$5.4 million for general research and services, $5.3 million for arthritis research, $3.7 million for allergy research, $4.7 million for neurology research, $13 million for cancer research, $12.3 million for mental health research, $8.6 million for heart research and $4 million for dental research.

Effort to Boost FDA Funds

During consideration of the bill, an effort was made to boost the funds of the Food & Drug Administration by another $3,591,000 and to provide $332,000 for equipment of a radiological study by FDA.

The bill carries $16,852,000 for the agency, an increase of $3,052,000 over the amount appropriated for the current year. The proposal for a further increase was rejected.

Action on the appropriations bill for the Department of Commerce occurred in the senate. The bill was passed by the senate, providing for an appropriation of $738,338,300. The amount is $22,133,935 less than that which had been previously approved by the house.

The Department of the Interior appropriations bill, also passed by the senate, provides for a fund of $577,395,625 for the new fiscal year. This is $38,881,700 above the budget estimate and $45,836,400 more than was voted by the house earlier this session.

Soybean People Saddened

—*Continued from page 3*

time, broke into the open last week when during a lull in the fight over civil rights, a move was made to obtain senate approval of HR 7456 to continue the casein tariff suspension for three additional years.

The bill passed the house quietly last year and has been pending on the senate calendar since January.

With the rapid development of soya protein in the past several years as a possible replacement for casein in many industrial and animal products, however, senators from the agricultural areas were alerted to the legislation and the fact that it had been passed by the house and reported to the senate without the formality of a hearing.

When they protested the legislation on the senate floor, leaders quickly agreed to change the bill to a three-months' extension since time was running out. A hurried hearing was called by the finance committee on March 31, the day the duty suspension was to expire, to give the members a chance to delve into the situation.

A letter from the Department of Agriculture supplementing its earlier statement that it had no objection to continuing the duty suspension was placed in the hearing record.

The department said that it had considered a number of factors regarding the effects of the legislation, particularly with respect to the soybean producers. Some of these were: The limited number of processors of the protein in this country, the continued expansion of the new industry while the casein tariff was in suspension, and the probability that the casein-exporting countries would simply adjust their prices to remain competitive whether the duty was restored or not.

Commission Cites Price Differential

The Tariff Commission also filed a letter reporting several instances in which soya protein has displaced casein in industrial production, saying that this displacement was probably due to the fact that the soya protein "frequently was quoted at lower prices than casein."

A new process for manufacturing the product which enabled it to be quoted at 4 cents a pound lower than that manufactured under the old process, it was added, contributed to the price differential and offset the 2¾ cents decline in casein prices when the duty was dropped.

According to the Department of Agriculture, four companies presently produce isolated soya protein and of these, two have plans for expansion, and a fifth company is planning to build a plant.

Actual annual production is not known, but it is currently estimated to be 50 million pounds of industrial grade, plus about 5 million pounds of food grade. Casein imports have increased from 43 million pounds in 1951, just before the domestic casein industry was knocked out by the milk price support program, to 60 million pounds in 1954 and to 71 million pounds in 1956. After suspension of the tariff on September 3, 1957, imports continued upward to 75 million pounds that year and to 94 million pounds in 1959.

Reichhold Licensed by Becco To Use Epoxidation Process

Reichhold Chemicals, Inc., has been licensed to use the *in situ* epoxidation process for which a patent was recently granted to Becco Chemical division of Food Machinery & Chemical Corporation, Buffalo, N.Y. Reichhold is the first licensee for the process.

Epoxidation is achieved in the Becco method by using hydrogen peroxide as the oxidant and ion-exchange resins as the catalyst. An advantage of the process is said to be elimination of the need for a pre-formed peracid.

Reichhold is employing the new process in production of "Perioxidol 780," an epoxidized soybean oil, and "Perioxidol 781," an epoxidized fatty acid ester, both of which move into vinyl resins.

Compulsory Health Insurance Killed by House Committee

The house ways and means committee has overwhelmingly rejected the Forand bill to provide compulsory health insurance for the aged. Following the committee's action, Rep. Aime J. Forand, of Rhode Island, said he would file a discharge petition that would force the committee to submit the bill to the floor.

Rejection of the bill leaves the door open to a program that would be operated on a voluntary basis. Secretary of Health, Education and Welfare, Arthur S. Flemming, has already indicated his approval of such a measure.

Pharmacopeia Elects Set Of Officers for Ten Years

A new slate of officers and trustees was elected last week at the Decennial US Pharmecopeial Convention. They will serve for ten years.

The new officers and board of trustees are: President, Dr. Arthur C. DeGraff; vice president, Theodore G. Klumpp; secretary, Adley B. Nichols; treasurer, W. Paul Briggs; chairman of the board, George D. Beal; members, Windsor C. Cutting, Paul McClain, Patrick H. Costello, George M. Archambault, and Linwood F. Tice.

Goodrich Advances Nantz

Thomas B. Nantz has been appointed vice-president of marketing by B. F. Goodrich Chemical Company, Cleveland, Ohio. Robert D. Scott, now development vice-president, will succeed Mr. Nantz as vice-president of manufacturing.

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Essential Oils, Aromatics

Firm but quiet was the general tone of the essential oils last week. Among the strongest markets are both Ceylon and Java-type citronella, Bourbon and Algerian geranium, grapefruit, palmarosa, patchouli, sandalwood, spearmint and both Bourbon and Haitian vetiver. Among the aromatic chemicals, methyl ionone is reported to be quite strong, and among the seeds and spices, both black and white pepper are relatively strong.

From information published for the beverage trade, we have excerpted the following information about the soft drink industry.

During 1960, the industry expects to sell some 1.7 billion gallons of soft drinks which means that, roughly, the average American will consume 203 bottles of carbonated drinks.

Of these beverages, which are flavored with essential oils and aromatic chemicals, the most popular type is the cola. It is said to account for 65 to 70 percent of all soda sold. Next in popularity come the lemon-lime, ginger ale and mixer beverages, orange and then root beer. Least in demand are such flavors as raspberry, grape, cherry, strawberry, quinine water and celery tonic.

According to the president of one of the flavor companies in New York, 80 percent of flavors used in soda are natural. He pointed out that natural flavors are more expensive than synthetic ones, but that manufacturers seemed to prefer them.

The same executive estimated that some $75 million per year was spent to flavor the soda pop and that definitely, the soft drink industry was the biggest customer the flavor companies have.

For every gallon of sugar syrup, there are usually two ounces of flavor added. Also in the mixture are water, carbon dioxide, citric acid, color and often a preservative such as benzoate of soda. The 2 ounces of flavor is just an average, however. It can vary anywhere from a half ounce to four ounces depending upon the particular flavor.

So far, the flavor companies haven't been too restricted by tighter Food & Drug Administration controls, but two flavors have been 'called down' by the administration. Coumarin, an ingredient formerly used in cream soda has recently been banned and now safrol, which is important in the flavoring of root beer, is under scrutiny.

Besides the old stand-bys, new types of sodas are fast booming. Chief among these are the dietetic drinks which are consumed mainly in large cities by women. In 1959, for instance, 18 million cases of sugar-free beverages were sold.

Historically speaking, the soft drink industry had its commercial beginning early in the 19th century when some druggists in Philadelphia started bottling flavored carbonated water. Earlier, however, people knew the delights of drinking carbonated water. Joseph Priestly who discovered oxygen, is said to have developed artificially carbonated water. Even before his work, people drank naturally carbonated water that came from springs—around the 16th century.

The Food & Drug Administration of the United States Department of Health, Education & Welfare announces that mint flavoring for canned pineapple would be permitted under a proposed change in the Federal identity standard for this food.

FDA also invited written comments from all interested persons as to whether the standard should provide for the addition of spice, vinegar, and flavorings other than artificial. Such optional flavoring ingredients are already permitted, the agency pointed out, under the identity standards for most other canned fruits. Under both proposals, the label of canned pineapple would be required to state the use of any optional flavoring ingredient.

Sixty days are allowed for the comments, which will be considered by the Commissioner of Food & Drugs in deciding if the proposals promote honesty and fair dealing in the consumer interest, as required by law.

The proposals were published in the March 25 Federal Register.

The following statistics are reprinted from the Foreign Commerce Weekly which is published by the United States Department of Commerce in Washington.

The Citrus Marketing Board of Israel reports exports through the first week of March of 6.5 million cases, up 15 percent from the comparable period last year. This indicates that exports for the 1959-60 season may approach 11 million cases, compared with the earlier expectation of 10 million and the 9.5 million cases exported last year.

Citrus prices continue low, and some consignments of grapefruit are being earmarked for cold storage in Europe for sale later in the season. (This item was furnished to the Foreign Commerce Weekly by the United States Embassy in Tel Aviv.)

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100 = 1949 average)

Last week	Prev. week	Last month	April 3, 1959
146.89	146.89	146.60	145.91

For Current Prices see Page 10

Essential Oils

Bay—No further price change has been noted in the NF Puerto Rican 50-55 percent variety since the upward price revision was made in the previous issue. Bay oil is now selling for $2.40 per pound.

Bergamot—The natural Italian material in cans is selling for prices ranging between $11 and $12.50 per pound.

Bois de Rose—Brazilian material is selling for prices ranging between $2.20 to $2.55 per pound. Peruvian material is selling for prices ranging between $1.95 and $2.30 per pound.

Citronella — Both the material from Ceylon and that from Formosa are reported to be still quite firm. The OPD lows for each of them, however, remained unchanged during the week. The low for Ceylon remained at $1 per pound and the low for Java-type remained at 85c. per pound.

Geranium—Material continues to be high-priced and scarce. According to the OPD listings, Bourbon material is selling for $22 per pound and Algerian, for $19 per pound.

One of the aromatic chemical companies has recently announced that, in view of the present tight situation for geranium oil, it has developed two geranium-type compositions.

One of the compositions is said to have the same basic characteristics and the same odor intensity as the natural oil. It exhibits stability, the company said, and it does not cause discoloration.

The other geranium-type composition which does not exhibit the same odor intensity and power of the natural oil, is an economical composition designed primarily to extend geranium oil in prefume formulations particularly where cost is a factor. It has stability in soaps and can be used in both liquid soaps and heavy duty detergents.

Grapefruit—Increased demand is said to be responsible for the extremely tight market for grapefruit oil.

The following information comes from

Imports Detained at N. Y.

Week Ended March 25, 1960

Black pepper, 9 lots, 1,480 bags.
Caraway seed, 100 bags.
Cassia, 93 lots, 7,921 bales.
Cumin seed, 5 lots, 731 bags.
Fennel seed, 4 lots, 420 bags.
Ginger, 12 lots, 2,668 bags.
Mace, 10 cases.
Nutmegs, 7 lots, 553 bags.
Oregano leaves, 40 bags.
Papain, 2 lots, 100 cases.

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POLYMER CHEMICALS — *Vinyl Resins • Polyethylene Resins • Styrene-Butadiene Synthetic Rubber*
THE ALCOHOLS — *Ethyl Alcohol • Methanol*
ETHYLENE CHEMICALS — *Ethylene Oxide • Ethylene Glycol • Diethylene Glycol*
INORGANIC CHEMICALS — *Caustic Soda • Chlorine*
MISCELLANEOUS ORGANICS — *Phenol • Detergent Alkylate • Formaldehyde*

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Essential Oils

the Statistical Summary, published by the Agricultural Marketing division of the United States Department of Agriculture.

Grapefruit production, at 42.8 million boxes, is about an average crop but down 2 percent from last year.

Approximately 62 percent of the grapefruit crop had been harvested by March 1.

Lemon — The following information comes from the Statistical Summary published by the United States Department of Agriculture's Agricultural Marketing division.

The lemon crop, at 17.9 million boxes, will top last year's crop by 3 percent. Approximately one-third of the lemons had been harvested by March 1.

Palmarosa—According to the essential oil dealers, palmarosa oil is firming. The OPD range remains at its previous level, from $4.45 per pound to $6 per pound.

Patchouli—The high of the range is revised upward—from $5.75 to $6.25 per pound. The low remains at its previous level, however—$5.10 per pound.

Sandalwood—While no further price advances have been noted since the previous issue, the market is reported to be quite firm. Last week there was the news that there was a coal shortage in the producing areas of India. Coal is used to operate the distilleries.

Spearmint—The market remains quite firm, according to the essential oil dealers in the metropolitan New York area. The range continues between $9 and $11.75 per pound, but most dealers are selling their material for the higher price.

Oil continues to be difficult to obtain, the dealers report.

Vetiver—The market remains firm with prices ranging between $16.50 and $17.50 per pound, for Bourbon Material. Haitian material ranges between $14 and $15.75 per pound.

Aromatic Chemicals

Eugenol—Prices continue to range between $2.10 and $2.50 per pound, according to aromatic chemical dealers here in the New York area.

Methyl Ionone—The standard material in drums is reported to be firming. The OPD range, however, remains between $3.40 and $3.75 per pound, but some dealers are quoting higher than $4 per pound.

Seeds and Spices

Cassia—All grades of cassia are reported to be at exceedingly low prices. And the prediction is that these prices may hold for a month to come. During May and June, however, a stronger market is forecast.

Cumin—Sales are reported to be good. And one of the seeds and spices dealers suggests the good volume of business may be attributed to the fact that more and more people are eating curried foods and Chili, for which cumin is a principal flavoring agent.

Celery—Both the French and Indian varieties are expected to sell well during the next two months, according to reports from essential oil dealers.

Cordiander—The big season for cordiander seed is approaching, according to dealers.

Paprika—Prices for Czech, Hungarian and Bulgarian are reported to be reasonable.

Pepper—Malabar and Lampong black advanced in price 2c. per pound. From the previous high, 56c. per pound, they advanced to 58c. per pound. Muntok white advanced 2c. per pound also. From its previous low, 85c. per pound, it advanced to 87c. per pound.

FMC Eyes Market

—*Continued from page 4*

grapes, apricots, cherries, peaches and nectarines.

A tolerance of two parts per million of the miticide was established recently on citrus fruits.

As for cotton, Niagara thinks it will take over for phosphates and other type miticides where resistant species turn up. "Tedion" reportedly is able to control many such resistant strains.

According to FMC, clearance by FDA and USDA means that "Tedion" can be used to control essentially the complete mite complex.

Previously, applications could be made only up until petal fall which, for the most part, limited its control to the early-appearing European red mite.

Now treatments can be made when fruit is present on the trees in order to control summer mites—two-spotted spider mite, McDaniel mite, canadensis mite and carpini mite.

These species hatch from eggs laid in fields and grasses and migrate into the trees later in the season. Thus, they can't be controlled by early sprays.

To bring this product on the market cost FMC somewhere in the neighborhood of $1 million and five years of labor.

And, reports J. V. Vernon, vice-president of the corporation, Food Machinery had one added expense: the Delaney anti-cancer amendment, which tacked on $100,000 to FMC's research bill for additional testing.

USDA Proposes Tightening Of Thallium Labeling Rules

New requirements for the labeling of household pesticides containing thallium compounds are being proposed by the Department of Agriculture to lessen the danger of these toxic substances becoming harmful to humans and pets. The proposed new requirements are contained in an interpretation of the economics poisons laws published by the Department in the *Federal Register* March 26.

Besides listing the various ingredients contained in the formulations and directions for use against particular pests, the labels must also carry the word "POISON" in red with the skull and crossbones, and contain an antidote and a warning against cumulative effects of the poison.

No claims for safety or non-toxicity will be acceptable to the department for thallium baits.

The department said that there has been a growing number of cases of accidental poisoning from the handling or use of thallium salts as a pesticide when mixed in high percentages with edible baits. This is the reason for tightening the requirements of labeling such products for household use.

In order to avoid immediate disruption of the marketing of household pesticides containing thallium compounds that are presently packaged, labeled and registered in accordance with the law, the new requirements will not become effective for ninety days for those products which currently are registered. The new requirements are effective immediately for any compounds being registered for the first time.

Starch Is Coming

—*Continued from page 7*

lion annually in 1957-59, and amounted to $11.4 million in 1959.

Of the total quantity imported last year, about 83 percent was tapioca; 11 percent corn; 3 percent potato; 2 percent arrowroot; and the remaining 1 percent sago, rice, and wheat starches.

The ratio of corn starch imports to open-market sales of such starch by domestic producers increased from 0.1 percent in 1954 to 1.3 percent in the first nine months of 1959.

Virtually all the imported corn starch is competitive with domestic corn starch, and the commission says that the increase in imports "is accounted for by the rigidity of delivered prices of domestic corn starch in comparison with a downward trend in the price of the imported product."

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Coatings Materials

It was a poor April fools' joke that was played on producers at phthalate plasticizers when the price increase on the plasticizers that was scheduled to go into effect last Friday (April 1), was scratched as producers backed away one by one. The price hike was to have been in the nature of 1 cent-to-2½ cents a pound. But one producer states that the price increase has not been entirely scraped, only suspended. The suspension is to last three months, at which time a review of the price situation of the phthalate plasticizers would be made. In the announcement of the suspension, the producer also reduced the price on triphenyl phosphite by 10 cents a pound. The reduction is to take effect immediately.

Three month suspensions are in vogue this week in both the plasticizer and casein markets. The senate voted to amend a house approved bill to continue the suspension on the duty of casein from three years to three months.

The amended bill was passed by both houses on Thursday, March 31. The reduction in coverage of the suspension was adopted to allow time for the senate finance committee to hear objections on the continuing of the suspension of the duty. The moratorium on the duty had been in effect since April 1, 1957, but expired last Friday (April 1). The old duty had been 2¾ cents a pound.

Elsewhere in the protective coatings market, the situation remained quiet. Calls for prime pigments generally routine with prices firm and unchanged. In the shellac market, Calcutta's prices are reported to be the same as in previous weeks. Sales are steady and about at normal levels.

Price Trends

Advanced

Calcium carbonate, $2 per ton

Reduced

None

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	April 3, 1959
103.13	103.13	103.03	103.05

For Current Prices see page 10

Prime Pigments

Aluminum Paste and Powder—Market conditions are firm this week. Prices are holding in the range of 71c. a pound for aluminum paste, lining, extra-fine and 43½c. a pound for standard grade. Aluminum power, lining, extra-fine is at $1.13 a pound while standard grade remains 83c. a pound. All prices are for material in drums.

Dry Colors—Slowed somewhat by the adverse weather conditions, demand for dry colors is described by trade sources as good as it can be. The spring-time surge in painting activities has not begun to hit its usual pace. Although some signs of increased demand are in the air, no great change in general market conditions is reported. Prices remain at the same levels as in previous weeks.

Lead Pigments—Routine market conditions continue to prevail in this market. The overall situation has been dull for the last month and very little change in this condition is anticipated in the next few weeks. Listings for all grades are unchanged this week.

Lead pearlescent pigments used to make washable wall paper, plastic sheet and vinyl floor tile were recently exhibited in a Homebuilders show in Chicago. The lead pearlescent pigments were introduced a year ago and have been finding widening uses in packaging, product finishes and in other fields, according to the Lead Industries Association.

Leaded ceramic material, which the Association says is well established in home construction, was represented by glass panels with fused leaded glass color enamels as their finish and glass building blocks with similar leaded finishes.

Carbon Black — Production of carbon black in February was 18.8 percent above February, 1959. Shipments decreased 1.6 percent from February a year ago. Stocks increased nearly 13 million pounds in February, according to the Bureau of Mines. Production of carbon black totaled 170,502,000 pounds for February of this year. Exactly a year ago production was set at 143,519,000 pounds. Shipments amounted to 157,820,000 pounds in February, 1959 as compared to the 160,391,000 pounds reported for February, 1959.

Thermal carbon black production was placed at 12,438,000 pounds for February, 1960 while a year ago the output was 11,675,000 pounds. Shipments of thermal carbon black was reported to be at 9,159,000 pounds for the month of February, while a year ago shipments were higher at 12,558,000 pounds. At the first month of the year shipments were up to 19,372,000 pounds. Stocks of thermal carbon black were down from their high of 22,198,000 pounds in February of 1959 to 19,376,000 pounds in February of this year. Last month stocks of thermal carbon black amounted to 16,097,000 pounds.

Synthetic Resins

The following figures show production in pounds for 1959 and list January, 1960 figures for comparison, as reported by the Tariff Commission:

Production

	Total, 1959	January
Phenolic and other tar acid resins:		
Molding resins	255,063,414	19,109,545
Laminating resins	75,730,181	6,429,305
Protective coating resins, modified, unmodified, except by rosin	28,725,820	1,844,918
Urea and melamine resins:		
Protective coating resins, straight modified	37,980,670	3,106,555
Styrene resins:		
Protective coating resins, straight modified	80,667,739	6,601,715
Vinyl resins:		
Total all types	1,151,897,189	102,068,674
Alkyd resins for protective coatings:		
Phthalic anhydride types, unmodified	270,985,490	20,779,218
Modified with tar acids, rosin and/or other material except styrene	73,152,228	5,778,229
Polybasic acid types except phthalic:		
Unmodified	6,906,210	805,941
Modified with tar acids, rosin and/or other materials except styrene	8,778,608	582,604
Rosin modification for protective coatings:		
Rosin, rosin esters, unmodified ester gums, esterified with glycerol	12,206,191	950,030
Esterified with other alcohols, pentaerythritol, glycols, etc.	12,206,191	950,030
Modifications with phenolic and other tar acid resins	26,264,476	2,370,842
Modifications with maleic and fumaric acids	36,545,320	3,307,563
All other modifications	54,051,853	5,140,129
Coumarone-indene and petroleum polymer resins	259,823,876	19,367,665
Material including silicone resins	224,429,881	21,757,355

Lacquer Materials

Plasticizers — The confusion that has clouded the phthalate plasticizer price picture finally cleared last week as the last of the hold outs reversed their position on the scheduled price increase on the phthalate. The 1c.-to-2½c. a pound price increase was to go into effect last Friday, April 1. At least one producer decided to suspend the increase until July 1. At that time, a review would be made of the price situation and action taken.

Supplies are reported to be in good balance. Demand is well sustained for all the phthalate plasticizers. Overall market situation is considered to be good.

The Tariff Commission reports that in 1959 the total production of dibutyl phthalate was 13,824,527 pounds. Output for January of 1960 was placed at 1,391,570 pounds. The total production dioctyl phthalates (di-n-octyl, di-isooctyl, di (2-ethylhexyl) phthalates and mixtures was 140,422,387 pounds for 1959. Production during the month of January of this year amounted to 12,846,075 pounds.

Tricresyl Phosphate—Production of this plasticizer anti-knock compound reached 30,843,276 pounds in 1959, according to the Tariff Commission. The output for the first month of this year was placed at 1,528,273 pounds according to a preliminary report by the same agency.

Fillers and Inerts

Gypsum—Industrial activity in gypsum was at an all time high in 1959. Domestic output of crude gypsum attained a new high; imports increased 52 percent. The crude gypsum supply, 16,971,820 short tons, included 10,837,160 tons mined in the

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Coatings Materials

United States and 6,134,660 tons imported. Crude gypsum production in the first quarter dropped 12 percent below the closing quarter of 1958, increased sharply in the second quarter, continued upward in the third, but declined in the fourth quarter. The total production was 13 percent above that for 1958, according to a report released by the Bureau of Mines.

Uncalcined gypsum products sold or used during the year amounted to 3,896,890 tons in contrast to 3,470,699 tons in 1958, an increase of 12 percent. Of the 1959 quantity, 71 percent was consumed in the manufacture of Portland cement.

Calcined gypsum output during the year increased 14 percent to 9,268,282 tons, of which 3 percent of 311,093 tons was consumed as plasters in the manufacture of industrial products. Plasters for building purposes in 1959 totaled 2,681,558 tons, an increase of 6 percent above those similarly sold or used during 1958. Output of prefabricated items soared 17 percent. The greatest increase was in wallboard production, which reached a record high.

Natural Resins

Gums—Market for gums continued to be routine this week. Prices for all grades were reported to be steady. Singapore and Philippine pale chips are unchanged in their listings. Congo copal holds at 25c.-to-24c. a pound for No. 1 grade while No. 2 is in the range of 22c.-to-24c. a pound.

Shellac — After the excitement died down over the proposal by the Indian Lac Association to raise the floor on shellac, the market here became quiet. The Calcutta market is reported to be steady and firm. No change is reported in the listings for shellac.

Miscellaneous

Casein—Casein importers watched with great interest and with some confusion the legislative maneuvering that attended efforts in congress to retain the suspension on the casein import tax. The original bill that was passed by the house and sent to the senate called for a renewal of the moratorium on the duty for another three years. In order to hear protests concerning the suspension, the senate finance committee amended the bill reducing the period of the suspension from three months to three years. A public hearing was held by the committee on Thursday (March 31). There, considerable pressure was exerted by the soya protein interests to force a return of the pre-April, 1957 duty of 2¾c. per pound.

The soya protein people were at least partially successful in their delaying tactics, as the three-month suspension was approved by both houses. Until July 1, congress will consider proposals by the soya protein industry that it deserves the protection the duty would provide. At the hearing, the Tariff Commission filed a letter reporting several instances where soya protein had displaced casein in industrial production. The commission maintains that soya protein frequently was quoted at lower prices than casein. A new process for manufacturing the product had resulted in even lower prices than casein when its 2¾c. a pound duty was dropped.

This action on the part of the senators and the soya protein producers has both angered and puzzled casein people here. It is their contention that since no industrial casein is produced in this country, the duty would afford protection to non-existant inferests. Casein men also hold that soya protein has but limited use as a competitive material. On that basis, a renewal of the duty would serve only to drive prices higher hurting consumers here and producers abroad.

With the market in a state of flux induced by the proceedings in Washington, it is not surprising to note that the Argentine market is quiet. Prices are unchanged from last week. The dock strike in the Argentine which has caused considerable re-scheduling of shipments, is reported to easing. Sources say that the affect of the strike is growing less apparent daily.

Naval Stores

Pine Gum—For the week ended March 19, the average price per standard barrel of commercial crude pine gum was reported at $31.70 as compared to the $33.20 for the previous week and $25.10 a year ago. The volume of gum deliveries to plants totaled 575 as against 1,050 barrels the previous week and the 713 barrels a year ago. Content per barrel included an average 7.60 gallons of turpentine and 288.9 pounds of rosin. Gum percentages ranged as follows: WG, 11; N. 23; M, 31; K and below, 35.

Rosin, Gum

(USDA, per 100 lbs.)

	Fri. Mar. 25	Mon. Mar. 28	Tues. Mar. 29	Wed. Mar. 30	Thurs. Mar. 31
Drums—					
M	...	...	$12.00	...	...
N	$12.45	...	12.00	...	...
WG	12.77‡	...	12.75	$13.00	...
WW	...	$13.44	13.00	...	...
Bags—					
Tankcars (for week ended April 1)—					
K or better, $11.50; M, $11.50; M or better, $11.50					
Sales, USDA	885*	2‡	5‡	327*	...

New York
(Per 100 lbs., c.l., Friday)

Turpentine, Gum

(USDA, per gal., 7.2 lbs.)

Price	.67	...	.715	...	...
Sales	...	...	...	...	...

* Drums equivalent. ‡ Average price. ‡ Carlots.

J-M Licenses Flintkote To Make 'Transite' Pipe

Johns-Manville Corporation, New York, has licensed Flintkote Company, also of New York, to manufacture high and low pressure asbestos-cement pipe long marketed by J-M under the trade name "Transite," and will design and engineer new Flintkote production facilities for this purpose.

Flintkote is planning on entering the asbestos-cement pipe field with two new plants—one in the east and one in the west. The products will be merchandized under the brand name "Orangeburg," through the Orangeburg Manufacturing division.

Borax Trucks Vanishing

—*Continued from page 7*

had not been considered feasible until the mine development had progressed far enough to permit a permanent and economic installation.

Trucking will be utilized to some extent even after the conveyor has been completed. Trucks will transport the ore from electrically-operated shovels to a new hammer mill, to be installed in the pit at the bottom end of the conveyor system.

The company's open-pit mining operation was started in 1956 while the $20 million processing plants were being constructed. It lies hard by the still visible tracks of the twenty-mule teams that hauled borax from Death Valley to the railroad at Mojave in the 1880's.

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Petro-Tex Chemical Corporation, a jointly-owned subsidiary of Tennessee Gas Transmission Company and Food Machinery & Chemical Corporation, has issued a booklet on the **handling of C_4 hydrocarbons.** Copies are available from the company at Box 2584, Houston, Tex. The spiral-bound, stiff-cover, booklet contains information on shipping methods, cylinders, general unloading techniques, tank trucks, tankcars, tank barges, hazards of fire, explosion and poisoning, and physical properties of the materials. A two-page bibliography is included.

Fritzsche Bros., Inc., has issued a revised product list for **essential oils, citrus concentrates, aromatic chemicals** and related materials. Copies are available to wholesale buyers by writing the company at 76 Ninth Avenue, New York 11. Among other products included in the twelve-page listing are colors, balsams, superesins, oleoresins, fixatives, tinctures and floral concentrates. The firm's line of flavors are covered in a separate catalog, available from the same address.

Union Carbide Chemicals Company, a division of Union Carbide Corporation, has issued a pamphlet of data on "Ucon Hydraulic Fluid M-1," a material developed specifically for the Titan missile's hardsite installations. The eight-page brochure is available from the company at 30 East 42nd street, New York 17.

Pennsalt Chemicals Corporation, acting on favorable response to a **production chart** featured in its annual report to stockholders, is making the chart available separately. Copies may be had on request to the company at 3 Penn Center, Philadelphia 2. The chart shows basic raw materials, intermediates, flow of processing and resulting end products, each identified by easily understood symbols.

Manufacturing Chemists' Association has issued chemical safety data publication "SD-77," covering safe **handling procedures for sulfur monochloride and sulfur dichloride.** Copies are available at 30 cents each from the association's headquarters at 1825 Connecticut Avenue, N. W., Washington 9, D. C.

Monsanto Chemical Company's inorganic chemicals division has published technical data sheet "1-168" on the use of "Santocel FR-C," an improved **silica aerogel flatting agent,** in oil-based varnishes. Copies are available without charge from the division's headquarters at 800 North Lindbergh Boulevard, St. Louis 66.

United States Borax & Chemical Corporation has put together thirty-one pages of general background information on **borax.** The resulting booklet, "Borax," is available from the company's public relations department at 630 Shatto Place, Los Angeles 5. Coverage includes history of borax before the 19th century, borax in the US, modern mining methods, applications for borates, and research and the future of boron chemistry.

Olin Mathieson Chemical Corporation has issued a guide to the selection of **aluminum alloys** covering virtually all products that can be made from the metal. Copies of the twenty-four page booklet, "Olin Aluminum Mill Products," are available from the company's metals division at 400 Park Avenue, New York 22. Described are physical properties, fabrication characteristics and economic advantages of a wide variety of aluminum sheet, plate, rod, bar, extrusion and and casting alloys. The various tempers, finishes and patterns available are discussed. Aluminum's yield and tensile strength, thermal conductivity and electrical conductivity are graphically compared with those of other materials.

Godfrey L. Cabot, Inc., has a new 16-page booklet titled **"Carbon Blacks for Paint."** Copies are available from the company's special blacks division at 125 High street, Boston 10, Mass. The brochure provides general information on selection and dispersion of the proper pigment for a particular application. Carbon black characteristic by group, as well as individual black properties and uses are described.

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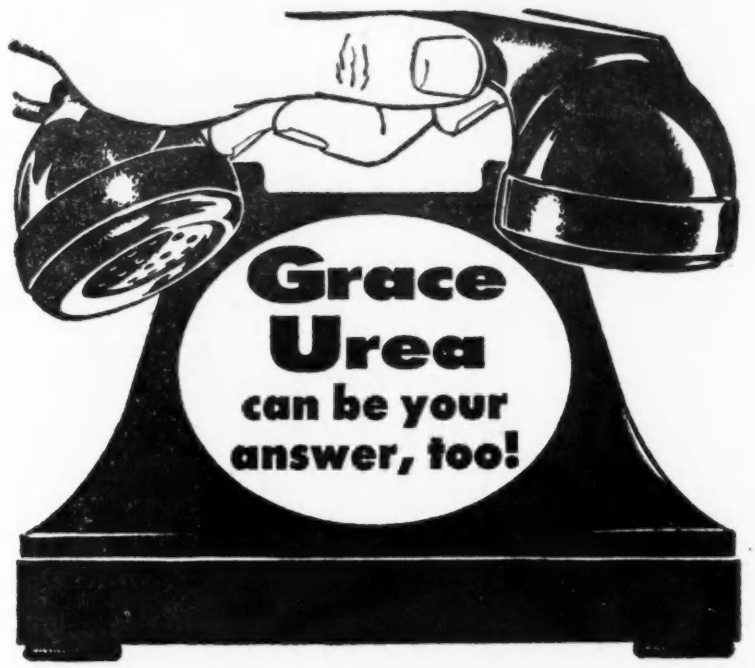

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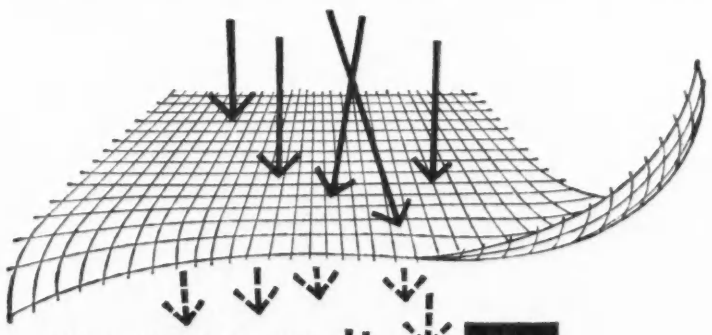

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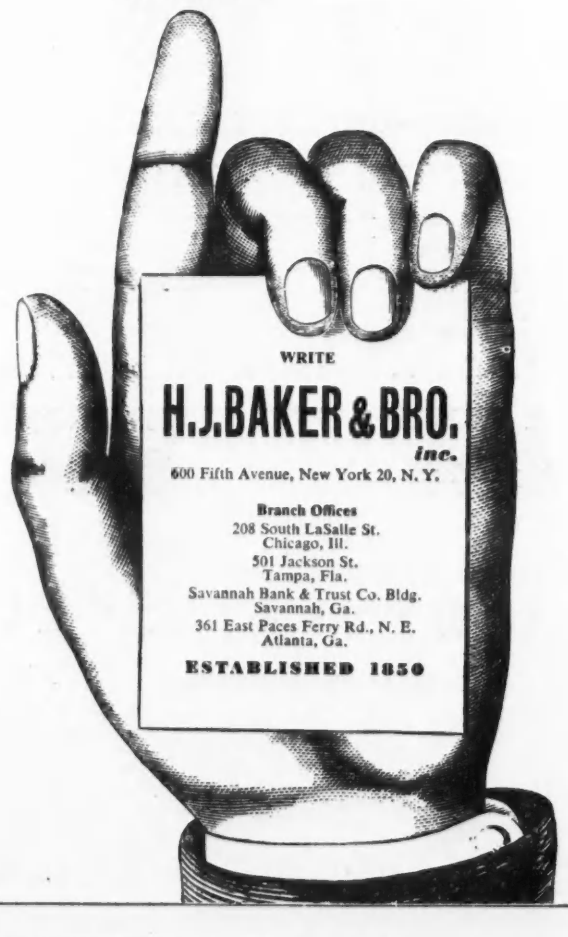

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Oils, Fats and Waxes

Firmer tone featured edible grades last week, led by peanut oil which advanced sharply because of the shortage of stocks. Cottonseed, soybean and corn oils were stronger advancing ⅛ cent to ¼ cent per pound. Consuming demand, however, continued restricted to nearby requirements. Crude coconut oil was inactive. Market was unsettled and prices drifted to slightly lower levels. Copra also was quiet, with buyers and sellers $10 per ton apart. Lard was stronger and continued to register moderate price advances.

While buying interest in tallow and greases was limited and confined to actual needs, the market remained unchanged and steady. Offerings were still light and closely held. Oleo stearine was in limited supply and trading took place at fractional advance.

Oiticica oil broke sharply, declining at least 1¾ cents per pound, as sellers accepted lower bids for a good volume of business which was booked on a scale downward for prompt and forward delivery. Tung oil continued firm and prices were up fractionally, and reflected the lack of offers from the Argentine. Brazilian castor oil moved spasmodically at unchanged quotations. Linseed oil moved in increased volume against existing contracts, while new business continued for fill-in needs. Refined fish oils also were in moderate request. Crude menhaden oil was quiet, but well held.

Soybean meal was firmer and advanced $2 per ton. Linseed meal was stronger, and up $2. Cottonseed and peanut meals were unchanged and steady due to limited supply.

Price Trends

Advanced

Corn oil, crude, ¼c. per lb.
Refd., ¼c. per lb.
Cottonseed oil, crude, ¼c. per lb.
Refd., ¼c. per lb.
Lard, cash, 3/10c. per lb.
Linseed meal, $2 per ton.
Oleo stearine, ½c. per lb.
Peanut oil, crude, 1c. per lb.
Refd., 1c. per lb.
Soybean meal, $2 per ton.
Soybean oil, crude, ¼c. per lb.
Refd., ¼c. per lb.
Tung oil, ¼c. per lb.

Reduced

Coconut oil, crude, ¼c. per lb.
Corn oil foots, 95%, ¼c. per lb.
Oiticica oil, 1¾c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	April 3, 1959
114.65	113.75	114.82	114.14

For Current Prices see page 10

Vegetable Oils

Castor—Trading was restricted to actual needs. Prices were unchanged and fairly steady. No. 1 Brazilian was available at 17¾c. to 17⅞c. per pound, tankcars, New York, prompt delivery, according to seller. Domestic grades were without change.

Imports of castor beans and castor oil at New York and Philadelphia last week were as follows:

	Pounds	
	Castor Beans	Castor Oil
Last week		1,000,000
Previous week	130,550	1,774,000
Corresponding week, 1959	839,100	1,700,000
Total this year	1,398,600	21,220,000
Corresponding period, 1959	7,819,600	22,650,000

Coconut—General Services Administration sold 5,830,560 pounds of crude coconut oil from the government's stockpile at 16.71c. per pound, bulk, f.o.b., Gardner, Kan., to the Procter and Gamble Company. Lower bids were turned down. An additional offer from 10 million to 14 million pounds was scheduled for May 10.

Crude coconut oil market was unsettled and lower. Offers were available at 16⅜c. per pound, tankcars, f.o.b. Pacific coast, for first half April and 16¼c., second half. Prompt shipment was quoted nominally at 18c., tankcars, New York, and 17¼c., bulk, c.i.f., same basis.

Corn—Crude was stronger, with competing oils; trading was noted at 14¼c., per pound, tankcars, f.o.b. mills, April shipment and 14c. May-June. Refined oil was higher at 17.99c., New York, prompt shipment.

Cottonseed—Trading was fairly active in futures on the New York Produce Exchange last week. Steady tone prevailed, with allied markets. Fluctuations were narrow, the market closing slightly higher for old crop and unchanged for deferred deliveries during the week. Trade interests continued to absorb nearby deliveries. Cash oil was quiet, but firm with higher crude. Refined salad was quoted at 13c. per pound, tankcars, New York, prompt shipment.

Crude oil was firmer and up at least ⅛c. to ¼c. per pound. Tankcars were quoted at 9⅞c. to 10c. per pound, in the southeast, as to location; 9⅞c., Valley; 9½c., Lubbock and 9⅝c., Waco.

Disappearance of refined cottonseed oil in February amounted to 3,152 tankcars against 3,250 in January and 2,170, February last year. Total for the first 7 months of this season (August-February) was 17,184 tankcars compared with 13,482 for the same period last year. Visible supply was estimated at 15,356 tankcars at the end of February against 12,967 a year ago.

Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, April 1, follow:

	Sales	High	Low	Close
		Cents per Pound		
May	408	11.98	11.70	11.90S
July	633	12.08	11.81	12.08S
Sept.	93	11.92	11.74	11.92S
Oct.	153	11.83	11.62	11.83S
Dec.	32	11.77	11.59	11.75S
March	1	11.77	11.77	11.75@11.83
May (1961)	7	11.80	11.69	11.75 Bid
July (1961)	4	11.86	11.75	11.86S

Total sales and switches, 1,331 contracts.

Linseed—CCC sold for export 4,825,000 pounds of raw linseed oil, at 10.11c. and 10.21c. per pound, bulk, f.o.b. Minneapolis last week. The price was ¼c. per pound above the previous sale. The total sold since the program's inception, February 18 amounted to 27,779,000 pounds.

The market was unchanged and steady. Slight improvement occurred in sales of linseed oil, almost entirely confined to small lots for nearby needs. Moderate pickup also occurred in withdrawals against contracts on improved weather in some areas. Prices were unchanged, raw linseed oil, in tankcars, f.o.b., Minneapolis, quoted at 13.5c. a pound for April-June delivery; 13.7c., July-September, same basis, and 14.61c. f.o.b., New York, N.Y., prompt delivery.

Oiticica—Trading became active when sellers accepted sharply lower bids for prompt and forward delivery. Sales were reported down to 15c. per pound, tankcars, New York for nearby and at 14½c. for futures. The market ranged from 14½c. to 15c. per pound, same basis, according to seller and delivery. Drums were lower ranging from 16½c. to 17c. per pound, as to delivery.

Olive—Active demand for Spanish oil from Italy continued to keep shipments strong. Spanish oil was maintained at $54 to $55 per 100 kilos, drums, f.o.b. for April-May shipment with trading reported at this level. US importers showed little interest in replacements. Greek oil for shipment to the US was inactive and nominal around $58 per 100 kilos, drums, c. and f. New York with Tunisian held at $2 higher. Oil on spot was unchanged and steady ranging from $2.30 to $2.40 per gallon, drums, duty paid, depending upon seller and quantity.

Palm—Market was unchanged and fairly steady. Trading was still spotty. Drums ranged from 14c. to 15c. per pound, spot as to quantity and 11¾c. for tankcars.

Peanut—Scarcity of stocks continued to strengthen the market. Crude was sold up to 16c. per pound, tankcars, f.o.b. mills. Refined oil was higher and nominal at 19¼c. tankcars, New York basis.

Peanuts crushed for oil and meal in February amounted to 16.1 million pounds increasing the season's total from August through February to 114.6 million pounds, compared with 123.5 million for the same period last year.

Soybean — Improved export interest stiffened this market and prices were slightly higher. Crude was higher at 8⅛c. per pound, tankcars, Decatur for prompt shipment. Refined salad was firmer at 10.10c to 10.15c., tankcars, New York basis. Spain asked for tenders of 60,000 tons of degummed oil for April-June shipment. Acceptance of bids will be announced today, April 4.

Crude soybean oil disappearance in

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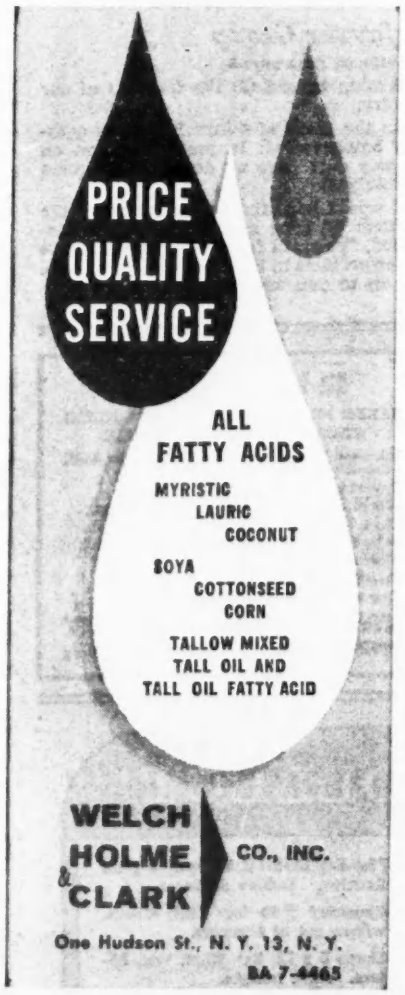

Oils, Fats and Waxes

Februrary was indicated at 5,987 tankcars compared with 5,567 in January and 5,452, February last year. Total for this season (October-February) was 28,019 tankcars compared with 28,584 during the same period last year. Visible supply at the end of February was estimated at 20,100 tankcars against 19,616, a year ago.

Soybean Oil Futures

Sales and prices of crude soybean oil futures in tankcars (60,000 pounds) on the New York Produce Exchange for the week ended Friday, April 1, follow:

	Sales	High	Low	Close
		Cents per Pound		
May	6	8.09	7.98	8.05@8.10
July	1	8.09	8.09	8.13@8.16
Sept.	3	8.10	8.01	8.04@8.07

Total sales and switches, 10 contracts.

Tung—Firmer tone prevailed and prices were moved up slightly because of the lack of offers from the Argentine. Limited stocks here were closely held at 21⅞c. to 22c. per pound, tankcars, New York, prompt delivery, depending upon seller. Drums were higher at 23⅞c. to 24½c., spot, as to quantity.

Miscellaneous

Cocoa Butter — Trading was light, chiefly for actual needs. Prices ranged from 55½c. to 61c. per pound, spot, according to quantity.

Copra—Market was quiet. Promp shipment was offered at $222.50 per ton, c.i.f. Pacific coast, with bids about $10 lower.

Flaxseed — Price fluctuations sparked only modest trading in cash flaxseed, reflecting lack of aggressiveness on the part of crushers as well as tendency of producers to hold back until seeding is out of the way. Bids were advanced 5c. one day, led by pronounced strength in Winnipeg futures. The higher price lasted only one day, bids returning to previous level of $3.25 a bushel, spot and to-arrive, basis Minneapolis.

Fats and Greases

Greases — Market was unchanged and steady, despite limited buying interest. Offers were not liberal and held at former levels. Choice was quoted at 6¾c. to 6⅞c. per pound, tankcars, delivered and yellow ranged from 5½c. to 5⅝c., same basis.

Lard—This market was firmer and fractionally higher. Cash lard advanced to 9.30c. per pound, drums, Chicago.

Tallow—Light trading took place at unchanged prices chiefly for domestic account, while export interest lagged. Soapers bought moderate lots of bleachable fancy at 6c. per pound, tankcars, delivered and sales also were made at ⅛c. more. Prime was quoted at 5¾c. to 5⅞c.; specent of the annual world outturn and most and guaranteed fancy, 6¼c. to 6⅜c., same basis. Export demand was slow. Guaranteed fancy was held at 7½c., drums, f.a.s. and 6½c., bulk., f.o.b. steamer.

Cake and Meal

Cottonseed Meal—Demand was spotty but the market remained steady. Stocks were limited. Meal, 41 percent was unchanged at $60 per ton, sacked, Memphis; and $65, Georgia area.

Linseed Meal—Trading in this market was of substantial volume, mostly for nearby requirements but also including scattered bookings for May-June delivery. Prices were boosted $2 per ton. One or two crushers were out of the market, reflecting poor deliveries of linseed oil. Formula feed business was active and mixers displayed more willingness to maintain full inventories. Extracted meal, 34 percent was held $56 to $56.50 a ton, bulk, in carlots, f.o.b., Minneapolis for April delivery and $57, May-June. Old process expeller 32 percent was steady at $65.50.

Peanut—Stocks light and firmly held. Most of demand was for small lots. Meal, 45 percent was quoted at $55 to $57 per ton, sacked, f.o.b. Georgia and Alabama area.

Soybean Meal—Good demand prevailed

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Oils, Fats and Waxes

in this market, the result of continued excellent feed business. Rush for feeds developed in some areas on anticipation of floods with the spring thaw. Road restrictions hampered truck deliveries. Unrestricted billing quotations were $2 higher and other markets were firm to strong. Spain purchased 15,600 tons of soybean meal for May-June delivery. Meal, 44 percent, was raised to $58 a ton, unrestricted, bulk, Decatur, for prompt delivery.

Waxes, Vegetable

Some improvement in the candelilla wax supply situation was noted because of the arrival of 750 bags of crude at New York last week. The bulk of this material was readily absorbed against former orders and active consumer demand. Prices, however, remained unchanged and steady. Crude was held at 68c. to 70c. per pound, for spot delivery. The supply situation was expected to improve slowly and steadily during the next few weeks.

Demand for carnauba grades continued spotty, with consumers restricting buying to actual needs. Prices for spot delivery were steady, reflecting the advance of 3c. per pound, for replacements from Brazil. Offers for shipment were scarcer because of flood conditions at producting areas. No. 3 Ceara crude ranged from 69c. to 71c. per pound, spot as to quantity and Parnahyba 71c. to 72c. Yellows were unchanged and steady.

Crude and refined beeswax were quiet and quite steady.

Narcotics Modernization

—*Continued from page 5*

there was no domestic production of the raw materials in this country.

However, beginning about 1940, the synthetic substitutes for the natural analgesic drugs in the morphine class were developed and came on the market. In 1946 congress amended the tax law to set up procedures for determining whether the synthetics had addiction liabilities similar to morphine and to extend the Harrison act to such substances.

A somewhat analogous procedure, in the field of international control, was provided in 1948, making the synthetics subject to the 1931 convention.

When these products are developed, the World Health Organization is notified, and it in turn communicates this information to the signatories to the convention who are then obligated to apply appropriate controls over the drug.

The drugs covered by the international agreements are restricted to narcotic drugs—that is, drugs having an addiction-sustaining liability similar to morphine or cocaine or convertible into drugs having such addiction-sustaining liability. US treaty obligations do not relate to, and the Karsten bill does not seek to control, the manufacture of other drugs such as barbiturates, amphetamines, tranquilizers and alcohol.

Fatty Acid Output Advances; Tall Acids Dip in January

Fatty acid output totaled 40.8 million pounds in February, up 3.4 million pounds from January and 1 million pounds higher than in February of last year, reports the Fatty Acid Producers' Council.

Production of tall oil fatty acids was at 6.6 million pounds, down sharply from 7.7 million in January, according to the council's report.

Disposition of fatty acids reached 42.4 million pounds, up from 41.2 million in January and 39.4 million in February a year ago. This was exclusive of category No. 13, for which disposition amounted to 4.9 million pounds. Total disposition, the council reports, was 47.2 million pounds in February and 47.3 the previous month.

Finished goods inventories were tallied at 38.4 million pounds on February 29, versus 37.9 million a month earlier. Work-in-process stocks, as a total for all categories, was 21.2 million pounds, down 1.4 million from a month earlier.

Mallinckrodt Behind Firm

—*Continued from page 5*

compounds from ore concentrates, (2) fabrication of ceramic shapes from uranium dioxide, (3) blending of natural and enriched uranium compounds.

Further, Mallinckrodt will grant the new company an option to acquire additional know-how related to the processing of enriched uranium materials.

Under terms of the license, Mallinckrodt will provide copies of engineering drawings, equipment specifications and processing data for use by Italatom. If necessary, technical personnel from Mallinckrodt will be sent to Italy to participate in initial engineering and start-up of Italatom processes, and personnel from the Italian company may be sent to St. Louis to become familiar with Mallinckrodt production techniques and facilities.

Kefauver Group

—*Continued from page 5*

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4041 P5—Shriver 18" Aluminum Filter Press; 18 chambers 2 eye Cl. Del.
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4343 K23—Sperry Cast Iron 30" Plate & Frame Press
4472 G29—Sperry Cast Iron 30" Filter Press; 25 Chambers; 2 eyed Open Delivery; Washing Type
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3989 K1—Independent 32" Wood Pl. & Fr. 68 chambers; 2 eyed; cl. del.
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F16 C1740—Sperry 36" Cast Iron P. & F. Filter Press; 72 Chamber; Hydraulic Closing device
3673-L41—Sperry 36" Aluminum Filter Press 33 chambers; 4 eye with hydraulic closing pump and motor
4252 A1—Shriver C.I. 42" P.&F. Filter Press; 4 eye; closed delivery
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4054 E2—Sweetland Filter No. 2; lead lined with 12 copper leaves
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3317 — Bird Young Rotary Vacuum Filter; 4' x 4'; Stainless Screens
5122 M1-3—Oliver Pressure Pre-Coat Filters 5'3" x 3'; Rubber Covered
5122 M4—Oliver Pressure Pre-Coat Filters 5'3" x 8' in Stainless
5147 S1-2—Oliver Pre-Coat Panel Type Acid Resistant Vac. Filters 8' x 8' and 8' x 10' complete
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F15-169—Oliver Dorrco Cont. Rot. Vac. Filter 4' x 3'
2729—Oliver Dorrco Rot. Vac. Filter 6' x 3' with nickel parts
F15 T817—Feinc 3' x 7'4" Rotary Vacuum String Type Filter; 20 HP XPL motor and accessories
4913 G2—Sparkler Filter Model 14D4 mild steel 200 GPH complete with Pump and Motor
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4749—Sanitary Stainless Steel Heat Exchanger; 5' long; having 48 (1") S/S Tubes; 45 sq. ft.
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4835 M4—Stainless Steel Four Pass Heat Exchanger with 60 (½") Tubes; Steel Shell 119½" long; 80 sq. ft.
4080 K1—Vertical Stainless Condensers; 251 Tubes; 220 sq. ft.
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4576 C1-2—2 Struthers Wells Stainless Steel Heat Exchangers; 22" x 12'; 400 sq. ft.
4287 A24—Ingersoll Rand Vertical Condenser; 18" x 13"; Disc Flow Type; 150 GPM 100' head
4344 H3—Vertical Two Pass Condenser Stainless Steel Tubes; 110 sq. ft. 14" diameter x 10'6" high
4339 C27—Karbate Tube Bundles; 48 tubes per bundle; 22" diameter x 4' long
3934 G20—Process Engineering 2 Pass Floating Head Heat Exchanger; 500 sq. ft.; 24" x 12'
4576 C3—Acme Stainless Steel Condenser; 24" x 16'; 1000 sq. ft.
4093 B27—Heat Exchanger 12" x 150" with 85 Admiralty Brass Tubes; 180 sq. ft.
4365-D1—Vertical Calandria 20" x 12'; ASME 500 PSI having 170 Tubes (1") 310 sq. ft. surface
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3961 E1-7—Premier Stainless Colloid Mills Type U3; 6"; 15 HP motors
H2 179—Premier Colloid Mill Type U4 S.S.; 8" rotor; 20 HP
4827 N3—Cherry Burrell Stainless Sanitary Homogenizer Size 1500; with 25 HP Motor
H2 198—Cherry Burrell S/S Homogenizer 1800 GPM; 25 HP motor
4703 G2—Chemicolloid Stainless Steel Colloid Mill Model A 15 with 15 HP Motor; 3525 RPM
H2 191—Premier U4 Paste Type 8" Mill; with 10 HP motor
5029 S1-3—Three Flowmaster Kombinators Model #200
H2 194—Case S/S Emulsifier-Homogenizer; 350 GPM; 10 HP motor
H2 S400—Manton Gaulin Stainless Homogenizer #400 KL6 with 25 HP motor
H2 F350—Manton Gaulin Stainless Homogenizer 1000 GPH with 30 HP motor
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1—1960 sq. ft. horiz. heat exchanger, T316 SS, ASME.

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2—Sharples #C-20 Super-D-Hydrators, T316 SS.

5—A.T.&M. 40″ T304 SS Suspended centrifugals, 40 HP motors. (Solid or perf. basket.)

17—Sharples AS-16V super centrifugals, inconel bowls & covers, 3 HP TEFC motors.

2—4′ dia. spray dryers, T304 SS, pilot size, elec.

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1—Alco 110 sq. ft. vertical leaf filter, T316 SS.

2—Oliver 5′3″ dia. x 3′ face rotary vac. filter, precoat, T316 SS. ASME 30# pressure housing.

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75—T316 SS heat exchangers & condensers: 2000 sq. ft. down to 30 sq. ft.—All sizes.

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1—Ross 6″ x 14″ 3-roll hi-speed mill, 5 HP.

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2—Robinson 125 cu. ft. ribbon mixers.

1—J. H. Day 30 cu. ft. jktd. ribbon mixer.

1—Sprout-Waldron 335 cu. ft. ribbon mixer, UNUSED.

2—Baker Perkins #15, 100 gal. sigma blade mixers.

2—96″ dia. Vulcan T316 SS bubble cap columns, 30 trays on 12″ centers, 272 caps per tray.

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1—4000 gal. 316 S.S. clad agitated reactor with coils.
1—1500 gal. Stainless Pressure Tank, 5′ x 10′, 90#.
1—12,000 gal. horiz. steel Pressure Tank, 7′6″ x 36′, 200 psi.
6—Stainless Heat Exchangers: 1220, 786, 536, 370, 315, 250 sq. ft.
1—24″ dia. x 35′, 304 S.S. Bubble Cap Column.

CENTRIFUGES

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1—Bird 18″ x 28″, 316 S.S. Solid Bowl, Continuous.
1—Bird 36″ x 50″, 347 S.S. Solid Bowl, Continuous.
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1—Tolhurst 32″ Suspended, 316 S.S., imperforate basket.
2—AT&M 48″ Suspended, 316 S.S. basket.
2—Sharples #16, 304 S.S., 3 HP motor.

MIXERS

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1—Baker Perkins #16TRM, 150 gal. jktd., Vac. 60 HP.
1—Baker Perkins 50 gal. S.S. jacketed, double arm.
5—Day "Cincinnatus" double arm, 250 and 100 gal.
1—1500# Powder Mixer, 7½ HP XP motor.
2—Steel, jktd. Powder Mixers, 225 and 350 cu. ft.
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1—Devine Vacuum Shelf with 19—59″ x 78″ shelves.
1—Devine Vacuum Shelf with 10—40″ x 43″ shelves.
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2—Devine 4′ x 9′, single drum, atmospheric.
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1—Louisville 6′ x 45′ S.S. Rotary Steam Tube Dryer.
1—Louisville 6′ x 45′ 316 SS Rotary Steam Tube Dryer.
2—Louisville Rotary Steam Tube 6′ x 25′, 6′ x 50′.
9—Rotary Dryers, 34″ x 30′, 4′ x 40′, 6′ x 50′, 6′ x 60′, 7′ x 80′, 8′ x 87′.
2—Louisville 8′ x 50′ Stainless Steel lined Rotary Dryers.
1—Traylor 30″ x 18′ Stainless Steel Rotary Dryer.
2—Link Belt, 7′5″ x 25″, 6′4″ x 24′, S.S. Louvre Dryers.

FILTERS

1—Oliver 6′ dia. Horizontal Filter, 316 S.S.
1—Oliver 3′ x 6′ Steel Rotary Vac. Precoat Filter.
1—Oliver 5′3″ x 6′ Rotary Vacuum Precoate Filter, 316 S.S.
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2—#49 Vallez Rotating Pressure Filters, 738 sq. ft.
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2—Louisville SS rotary dryers, 8' x 50', complete with drives, motors, fans, blowers, etc.

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1—Rotary dryer 6' x 64', 2 tires, ½" shell, complete with drive, motor, blowers and all auxiliary equipment.

1—Rotary dryer 6' x 56', 2 tires, ½" shell, complete with drive, motor, blowers and all auxiliary equipment.

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1—Rotary dryer 6' x 35', 2 tires, ½" shell, complete with drive, motor, blowers and all auxiliary equipment.

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1—Rotary dryer 4' x 20', 2 tires, ½" shell, complete with drive, motor, blowers and all auxiliary equipment.

10—Pacific vertical feed water reciprocating pumps, 10 GPM to 340 GPM, 80' head to 175' head, complete with motors.

1—Dorr Type DSFR-2 classifier, 3' x 20'6" x 2½" slope.

1—Hardinge pilot size ball mill, 24" x 8", complete.

1—Patterson rod mill, 4' x 11'6".

1—Pfaudler glass lined 500 gal. jacketed reactor, complete with anchor type agitator and drive.

4—Davis Engineering Carpenter 20 heat exchangers, 120 sq. ft. each (NEW).

1—Buflovak SS jacketed rotary vacuum dryer, 3' x 15'.

2—Stokes Model 138J-20 single door vacuum shelf dryer, 20 shelves, complete.

1—Pfaudler SS 5 gal. jacketed reactor, complete with impeller type agitator, baffle and drive, 100 psi internal, 78# jacket.

4—Steel jacketed rotary vacuum dryers, 3' x 15', 5' x 20', 5' x 30', 5' x 35'.

1—Fletcher SS 48" whirlwind centrifuge complete with perforate basket and motor.

1—18,000 gal. type 316 SS pressure tank, 11' x 24'.

1—Shriver aluminum 30" P&F filter press, 30 chambers.

1—Sperry aluminum 18" P&F filter press, 16 chambers.

1—Howes 40 cu. ft. horizontal rubber covered ribbon blender.

1—Van Alst 250 gal. SS jacketed kettle with SS packed column and condenser.

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4—Ross 100 gallon jacketed double arm mixers, hydraulic tilt.
2—Kux model 74 tablet presses.
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For Sale: New Sharples AS-14V Super-Centrifuge. Highest centrifugal force available ranging upwards from 13,200 times the force of gravity. Suitable for vegetable oil refiners, pharmaceutical manufacturers, chemical companies, steel mills, paint manufacturers. Bargain for quick sale. OPD 957.

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Chemical Company planning expansion seeking stainless, nickel and alloy processing equipment for lab pilot plant and commercial production. Will consider purchase of complete plant or other suitable arrangements. Prompt action offered in confidence. OPD 954.

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Towers, tanks, laboratories, small mfg. units available for Pilot Plant and Proving Ground operations. Plenty of water. Can alter to suit. Isolated location. Lease or sell. Humboldt 3-0488, or OPD 959.

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Imports at US Ports

—Continued from page 52

CALCIUM CARBONATE—1,600 bgs, Hammill & Gillespie, London
CASEIN—500 bgs, National Casein Co, Buenos Aires
500 bgs, Manufacturers Trust Co, Buenos Aires
CHESTNUT EXTRACT—600 bgs, Barkey Importing Co, Genoa
CORN STARCH—800 bgs, Rotterdam
FISHMEAL—1,087 bgs, Ilo
FUEL OIL—194,535 bbls, Shell Oil Co, Punta Cardon
159,306 bbls, Texaco Co, Bahrein
76,000 bbls, Humble Oil Co, Las Piedras
GYPSUM, CRUDE—13,215 tons, U S Gypsum Co, Hantsport
MOLASSES—750,000 gals, S Western Molasses Co, Ciudad Trujillo
2,924,726 gals, Rio' Haina
417,226 gals, Cienfuegos
598,833 gals, Santiago
PEATMOSS—1,000 bls, E J Lang, Bremen
2,000 bls, New Amsterdam Import Co, Hamburg
2,200 bls, New Amsterdam Import Co, Aarhus
1,604 bls, Premier Peatmoss Corp, Copenhagen
PETROLEUM, CRUDE—388,996 bbls, Mobil Oil Co, Covenas
201,335 bbls, Mobil Oil Co, Mina Al Ahmadi
167,332 bbls, Texaco Co, Covenas
249,483 bbls, Gulf Oil Corp, Puerto La Cruz
166,715 bbls, Gulf Oil Corp, Bachaquero
147,900 bbls, Gulf Oil Corp, Mina Al Ahmadi
123,000 bbls, Continental Oil Co, Puerto La Cruz
136,153 bbls, Shell Oil Co, Curacao
POTASSIUM NITRATE—330 bgs, Bremen
QUEBRACHO EXTRACT—446 bgs, Tanimex Corp, Buenos Aires
SODIUM SILICOFLUORIDE—600 bgs, Riches Nelson, Rotterdam
TAPIOCA FLOUR—800 bgs, Manhattan Adhesives Corp, Itajai
2,000 bgs, Stein Hall & Co, Itajai
VANILLA BEANS—7 cs, Chemical Bank, London
99 cs, Zink & Trieste, Tampico
ZINC OXIDE—300 bgs, Rotterdam

San Francisco

CALCIUM NITRATE—2,000 bgs, Bradley & Baker, Rotterdam
CARAWAY SEED—100 bgs, Louis Furth, Rotterdam
300 bgs, Lagendorf Bakeries, Rotterdam
CASSIA—175 bls, Rotterdam
COCONUT OIL—350 tons, Manila
COPRA—2,240 bgs, Pacific Vegetable Oil Corp, Manita
1,500 tons, Cargill Inc, Cebu
DEXTRIN—600 bgs, Morningstar Paisley Inc, Amsterdam
200 bgs, Morgan Guaranty Trust Co, Amsterdam
FORMIC ACID—50 dms, P W Bellingall, Bremen
MOLASSES—1,852 tons, S Western Sugar & Molasses Co, Hinigaran
NAPHTHA—37,592 bbls, Tidewater Oil Co, Mina Saud
PAPRIKA—300 bgs, Oceanic Forwarding Co, Rotterdam
PETROLEUM, CRUDE—233,403 bbls, Tidewater Oil Co, Mina Saud
44,172 bbls, Standard Oil Co, Dumai
SESAME SEED—550 bgs, W R Grace & Co, Corinto
TAPIOCA FLOUR—640 bgs, Sterling International, Kong Kong

Bids Wanted

Bentonite Clay, granular and powder type, indefinite quantity, The period date of award thru Jan. 31, 1961. Bid IFB SFF-16290-60, Business Service Center, General Services Administration, Region 9, 49 Fourth St., San Francisco 3, Calif.

Caustic Soda, amount $5,355.00, solid 98 99%, in steel dms. of 400 kilos, April 25, S/A Rm. 017733, for Tar Mohamed & Co., Rambharti, Jodia Bazar, Karachi, Pakistan.

Drugs, 4,080 bots., Reserpine tablets; 25,200 pkgs., Iopanoic acid tablets; 81,456 bots., Acetylsalicylic acid Acetophenetidin and Caffeine tablets; Bid IFB 7076Q, April 8; 10,800 bots., Tripelennamine Hydrochloride tablets; Bid RFP 7047Q, April 8; 3,312 bots., Disinfectant, Germicidal and Fungicidal; Bid RFP 7060, April 5; 15,840 bots., Nitrofurantoin tablets; Bid RFP 7133Q, April 7; 36,408 bots., Meprobamate tablets, Bid RFP 7134Q; 36,000 bots., Tetracycline Hydorchloride tablets, Bid RFP 7119Q, April 7; 14,230 cns., Isopropyl Alcohol, Bid IFB 32-175-60B; 2,592 bots., Bacitracin, for tropical and intramuscular use, Bid IFB 32-179-60B; an additional amount is being reserved for small business under a partial set aside, April 11; 6,960 pkgs., Vitamin B complex and Sodium Ascorbate injection, Bid IFB 32-181-60B, April 11; 14,580 bxs., Bacitracin Ointment; 34,128 tubes, Bacitracin Neomycin Ointment, Bid IFB 32-179-60B, April 11; Military Medical Supply Agency, 29th St. and 3rd Ave., Brooklyn, N. Y.

Medicinal and Pharmaceutical Preparations, 53 items, for the Orient Pharmaceutical Corp., Ltd., Thathai Compound Bunder Road, Karachi, Pakistan. Bid deadline April 25, PA No. 391-370-899-028-0207, S/A No. RM 017131, I.C.A. Small Business Circular, SBC No. 60-121, dated March 24. Issued by the Office of Small Business, International Cooperation Administration, Washington 25, D. C.

Polyvinyl Chloride-Acetate Copolymer, opaque white, in sheets of 0.015 inches thick, 36 inches x 54 inches, 2,200 sheets; 36 inches x 40 inches, 16,000 sheets. Bid sets available thru April 7. Bid IFB ENG 49-018-60-47, April 13, Army Map Service, 6500 Brooks Lane, Washington 25, D. C.

Swedish Paper Market

—Continued from page 3

rosin size, both regular and fortified, according to Henry A. Thouron, general manager of the international department.

"We decided to build the plant because of the unusually rapid growth and increasing importance of the Swedish paper industry. The industry's future is regarded among the most promising in the country, and we feel that we can best serve it with manufacturing facilities and a trained technical service and sales staff located in Sweden," Mr. Thouron said.

The most recently available statistics rank Sweden third in the world in per capita paper consumption, and eighth in the production of paper and paperboard.

Hercules also has been supplying rosin size to the paper industry in Sweden for some time.

The Hercules spokesman pointed out that for a number of years Hercules has been a leading supplier of chemicals to the paper industry in the United States, as well as in Canada, England, and other foreign markets, and within the past several years has also become a major factor in the tall oil industry in the United States.

Mr. Neumann has been manager of rosin size sales for the paper makers chemical department of Hercules for the past four years, and prior to that was the department's manager of technical service. He has been associated with the paper industry for twenty-three years.

Other operating, sales, and technical service personnel will be secured in Sweden.

Detergent Alkylate Plant

—Continued from page 3

be sold as a base material for detergents.

Oronite reports that the new "Alkane-60" will boost a detergent's foaming and cleaning power—compared to conventional dodecylbenzene products The improved properties are said to stem from the product's increased molecular weight.

The "Alkane-60" molecule's average carbon side chain is made up of thirteen carbon atoms—significantly longer than molecular chain structures found in conventional alkylates. It is the longer and heavier molecule, primarily, that promotes greater foaming and improved detergency.

Alkyl Prices Are Cut

—Continued from page 4

"Deac" (diethylaluminum chloride); "Dibal" (diisobutylaluminum hydride), and ethyl aluminum sesquichloride.

The new schedule replaces a former blanket price of $10 a pound for quantities up to 999 pounds. Prices are now $10 per sample for quantities of one-half pound; $4.50 a pound for shipments of four pounds; $3.25 a pound for 16 pounds; $2.50 for thirty-two pounds; $2.50 for forty pounds; $2.25 for 150 pounds, and $2 for larger quantities.

Making these price cuts possible, the company says, are economies derived from its commercial alkyl operation.

Snell Picks Up Lab

—Continued from page 7

partment of Agriculture. He served the latter as head of the pharmacology laboratory in Beltsville, Md.

The newly-acquired unit conducts acute and chronic toxicity studies, screening studies for new drugs, pharmacodynamic studies involving cardiovascular and central and autonomic nervous system responses to drugs, as well as inhalation studies.

Snell intends eventually to consolidate Sperling into its newly-expanded Baltimore, Md., division, Crippen Laboratories, Inc.

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4—RIBBON BLENDERS, 2500 gallons, 1350 gallons.
3—AUTOCLAVES S.S., 50 gal. 2000 lb., 3½ gal. 2000 lb., 2 gal. 5000 lb.
1—DRUM DRYER, Proctor & Schwartz.
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Dutch Chemical Concern Building Sulfuric Plants

Albatros Sulfuric Acid & Chemical Works, Vlaardingen, Holland, has just awarded contracts for two new sulfuric acid plants. Both projects, according to reports, are large enough to be considered major undertakings.

The first involves the engineering and construction of a sulfuric acid contact plant. The installation will have a capacity of more than 100,000 metric tons per year and will be designed to take sulfuric acid gas from pyrites.

The second plant will be a unique installation which will decompose sulfuric acid refinery sludge coming from an adjacent refinery.

Chemical Construction (G.B.) Ltd., a wholly-owned British subsidiary of Chemical Construction Corporation, New York, will be the contractor.

Albatros Sulfuric Acid & Chemical Works is jointly owned by Albatros Superfosfaatfabrieken N. V., of Utrecht—a member of the Dutch Salt Group—and by Cyprus Mines Corporation, Los Angeles.

Color, Labeling Legislation

—Continued from page 3

newed their appeal for inclusion of a new title that would contain amendments to the food, drug and cosmetic law giving the agency new authority to control labe ing of food, drugs and cosmetics.

They said the authority is needed to reach some of the hazardous Hair preparations and pressurized food containers on the market.

The American Medical Association urged that the bill be broadened to cover larger than household size packages of cleansers, polishes, etc., which are suitable for use in commercial establishments.

AMA spokesman said that a goodly number of industrial injuries have been sustained from the mishandling by janitors and others of packaged chemicals used in housekeeping operations.

The full house commerce committee resumes consideration of the color additives bill this week. A meeting has been scheduled for Tuesday and Wednesday (April 5 and 6) by Chairman Oren Harris of Arkansas with a panel of scientists, selected by the National Academy of Sciences, to discuss the scientific problems involved with reference to the Delaney cancer clause in the food additives law and proposed in the house version of the color additives bill.

AMA Cites Industrial Injuries

Members of the panel were announced last week by Mr. Harris, as follows:

Dr. William J. Darby, chairman, department of biochemistry, Vanderbilt School of Medicine, Nashville, Tenn.; Dr. Harold F. Blum, department of biology, Princeton University, Princeton, N.J., and Dr. Paul R. Cannon, of Yorkville, Ill.

Also, Dr. Floyd DeEds, Department of Agriculture, Western Utilization Laboratory, Albany, Calif.; Dr. Charles J. Kensler, department of pharmacology, School of Medicine, Boston University, Boston, Mass.; Dr. Morton L. Levin, Roswell Park Memorial Institute, Buffalo, N.Y.; Dr. J. Burrough Mider, associate director of the National Cancer Institue, Bethseda, Md.

And, Dr. James A. Miller, McArdle Laboratories, University of Wisconsin, Madison, Wis.; Dr. Walter S. O'Donnell, Sloan-Kettering Institute for Cancer Research; New York; Dr. Philippe Shubik, division of ontology, Chicago Medical School, Chicago, Ill.

Also, Dr. Harold L. Stewart, National Cancer Institute; Dr. Albert Tannenbaum, Medical Research Institute, Michael Reese Hospital, Chicago; and Dr. M. R. Zavon, Kettering Laboratory of Industrial Health, University of Cincinnati, Cincinnati, Ohio.

It is the committee's hope to gain some advice from the experts as to what congressional policy should be on the Delaney clause. It will be recalled that a similar panel discussion was held by the committee with a group of distinguished scientists prior to enactment of the food additives law.

The bill reported at that time contained no bar to the use of carcinogens as a food additive, but when the measure reached the floor of the house such a prohibition was inserted at the behest of Rep. James J. Delaney of New York.

Whether the house committee will go to work immediately on consideration of amendments to the color bill so that it can be reported for passage, remains to be seen. Chairman Harris has given no inkling of what he plans to do on this score.

It is felt in most quarters, however, that nothing will be done by the committee until the special study being made of the whole food additives question by a group of experts for the White House has been completed and administration policy has been firmed up.

Allied's Benington Retiring, Career Spanned 47 Years

George A. Benington, vice-president of advertising and trade relations for Allied Chemical Corporation, will retire from the New York company this month after forty-seven years of service in the chemical industry.

Mr. Benington's career began in 1913 with W. R. Grace & Co. In 1923 he moved to Bowker Chemical Company, a subsidiary of American Agricultural Chemical Company, as vice-president. He later became assistant to the president and a vice-president of the parent firm.

He joined Mutual Chemical Company in 1933 and had served as president of that company for eleven years when it was acquired by Allied in 1954. He was president of the Mutual Division of Allied until it was absorbed by Solvay Process Division. In 1957 he was named vice-president of marketing.

Holland Color Pushes

—Continued from page 4

pigments for the paint, plastics and printing ink industries. It also makes intermediate chemicals used in pigment manufacture.

The building was originally erected in 1942 for the production of anchor chains and armor plate for the armed forces; following the war it was used for the manufacture of furnaces and furnace accessories until 1954, when Holland Furnace Company consolidated its production facilities in its main plant on Columbia Avenue in Holland.

The plant is a one-story brick and concrete structure in good repair, and is completely equipped with a sprinkler system.

Oronite Increasing Plans To Sell Isophthalic O'Seas

Oronite Chemical Company, San Francisco, a subsidiary of Standard Oil Company of California, is launching a stepped-up overseas marketing program for isophthalic acid.

As the first phase of the program, Dr. Robert W. Stephenson, Oronite's isophthalic specialist, will hold slide-illustrated seminars in various European countries to discuss a broad range of technical and marketing information about the product with European scientific and industrial groups.

Among the first stops on Dr. Stephenson's itinerary is London, where he will address a joint meeting of the Society of the Chemical Industry and the Oil Color Chemists Association. He will also talk to industry groups in England, France, Germany, Italy, Norway, Sweden, Denmark, and the Benelux countries.

Commenting on the marketing program—which will be handled through Oronite's foreign marketing affiliate, California Chemical International—Oronite officials point out that improved production techniques have boosted isophthalic acid, overcoming a shortage which existed last fall. At that time, the short supply had temporarily prevented rapid market expansion.

Lead, Zinc Ideas?

—Continued from page 5

exporters and American exporters, the report had this to say:

"In summary, import quotas effecting such a large and complex industry as lead and zinc have not proved a satisfactory means of curtailing excessive imports of these metals. The quotas adopted are rigid and inflexible and, being incapable of adjusting the changing elements of domestic supplies to the changing and varying needs of industrial consumers, have tended to increase, rather than to reduce instability of market prices, and thereby to thwart the best interests both of domestic producers and consumers of lead and zinc.

"The system of import quotas has been discriminatory in its effects upon various producers, importers, and consumers, and has created unusual difficulties for some while it has brought windfall advantages to others.

"In zinc smelting, especially, the absolute quota system has tended to eliminate small, though efficient, producers who, with little or no control over domestic ore supplies, are rendered increasingly dependent upon precarious foreign ore supplies.

"On the one hand, this has tended to reduce nearby markets for ore produced by domestic mines and areas near the location of such smelters. On the other hand, it has tended to concentrate control over domestic ore supplies in the hands of a few powerful integrated corporations and, with imports strictly limited by quotas, to increase their control over domestic supplies and market prices.

"Finally, import quotas have seriously interfered with normal trade relations between smelters or importers and their suppliers and between producers or importers and their customers, thereby forcing unusual, unnatural, vexing, and often uneconomic adjustments."

Land to Succeed Shanaman At Pennsalt; Clark Advanced

Pennsalt Chemicals Corporation, Philadelphia, has appointed Hugh C. Land group vice-president in the west to succeed Fred C. Shanaman who will retire April 27. Mr. Land, with headquarters at Tacoma, Wash., will have jurisdiction over the firm's two western operating divisions; agricultural chemicals and industrial chemicals, west.

Mr. Land was formerly general manager of the industrial chemicals division.

Lee H. Clark, formerly vice-president in charge of administrative services, has been named group vice-president in the east with jurisdiction over the three eastern operating divisions: Chemical specialties, industrial chemicals, east, and international.

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